

# CURRENT NOTES

# Helping Atari Owners Through the World of Computing

Vol. 13, No. 8

**October 1993**  
**\$3.95/\$4.95 CAN**



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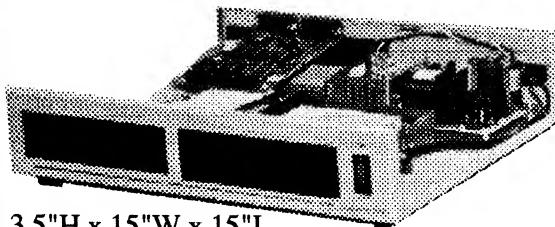
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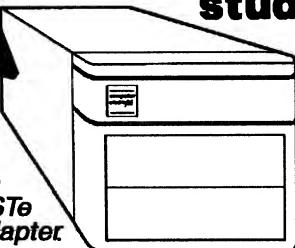
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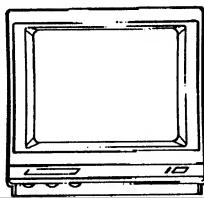
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## From the Editor's Desk

You will probably be getting this issue sometime in the middle of October, perhaps a week or so later than you would normally receive your issue of *CN*. As most regular readers are aware, the September issue came very late in the month. We expected that the issue would be mailed before Labor day. Needless to say, we were very disappointed several days after Labor day to learn that our printer had "press problems" and the issue would be delayed until the 14th. Oh, well, such is life, but that is why September was so late in arriving. The late arrival of the September issue then impacted our work on the October issue and delayed us there as well. Hopefully, by November (or December) we be back closer to our normal schedule.

The Atari market being what it is, Atari owners are often concerned when they call industry regulars and find, suddenly, that the phone is not answered. That is now the case with *Current Notes*; but do not be alarmed. Joyce, who for many years taught Chemistry at the local Community College, was asked to fill in this fall term for a friend who was off on sabbatical. So, after a six-year hiatus, Joyce is off teaching again. Between *Current Notes*, Boy Scout District Chairman, and now full-time teaching, believe me, her schedule is nothing you would want to experience. At least the college pays her, which is more than *CN* can claim! I, of course, am off during the day working for Uncle Sam and Cindy and Rebecca are at school. (You did know that the *CN* offices are in an extension off my home.) So, there is no one left to answer the phone. The fancy gizmo that was supposed to distinguish between fax and voice calls did do that, most of the time. However, when a voice

call wasn't answered, it did not switch to the answering machine, as per the instructions, but rather insisted on going to the fax. This, undoubtedly, confused voice callers all the more.

After this issue is out, we will move the fax to a new line (703-430-2618) and make sure the answering machine is back in service. You can always (well, almost always) reach us in the evening or on weekends. And, of course, there is the US mail and electronic mail (GENIE: JOE.WATERS and CIS: 74005,1270). We certainly will take care of any problems that readers bring to our attention; we are not a big impersonal corporation; just a teeny weeny small one. But it looks to be a very busy and hectic fall, so Joyce and I beg your indulgence and hope you won't mind being a little more patient than normal. We just wanted to let everyone know what had happened and offer our apologies to any callers who weren't able to get through.

One of the things I did squeeze in time to do in September was install *SpeedoG DOS* and *AtariWorks*. I've worked a little with the word processor and database (haven't even tried the spreadsheet yet) and, so far, I like what I see. On my system, a Mega ST4 with an SLM804 laser printer, the printed output is terrific. This package is not the be all and end all for sophisticated users, but it does have some very nice features and, for the home user, may represent a good compromise between functional capability, ease of use, and price. I hope I can tell you more in November. I do know the *Atari-Writer* disk introduced into the *CN* Library this month will certainly help with the learning curve.

*Joe Waters*

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**Moving?**

Don't forget to send in a **CHANGE OF ADDRESS** notice if you are moving. Current Notes is distributed via 2nd class U.S. mail. The post office does not forward 2nd class publications; they throw them away!

# News and Announcements

## NEW PRODUCTS

### Lexicor Announces AVerKey

Lexicor is pleased to announce direct distribution rights from ADDA Technologies for AVerKey, the link that bridges your VGA signal, be it TT Medium, Falcon or NOVA Graphics Board resolution, to your video system in either PAL or NTSC. The AVerKey also has an S-VHS output that allows you to add your television, VCR and large screen display to your computer hardware and, thus, move your presentation from the VGA monitor to the world of video!

Through its compact size and powerful internal design, the AVerKey can be quickly installed to convert a number of VGA modes, eg. 640x480, to NTSC or PAL systems. The AVerKey controls the brightness of your TV (video) display. VGA scan rates are almost twice that of a television. The display quality of the television with AverKey thus provides a superior display over that of a standard television. This is especially true of picture stability when displaying single line. Single line display will result in television flicker unless a flicker free function is employed. The AVerKey has such a built-in "flicker-free" feature, which stabilizes VGA Graphics on a television monitor. This feature greatly improves the display quality of your animations in either *Prism Paint*, *Da's Vektor*, *Chronos*, *Phoenix* or any other Atari software that will work in VGA Modes. Besides helping reduce flicker, this feature even further reduces brightness to a comfortable level.

Price: \$289, shipping and tax not included. Availability: Now! System Requirements: Any kind of VGA-based system. This includes NOVA Graphics Card and TT Medium. (The AVerKey has not been tested with any other Atari-based graphic card and can, therefore, not be guaranteed to run on anything else.) The AVerKey is bundled with DOS Software already included, Atari Software available end of September. Software is not required to run the AVerKey. The Software will, however, allow the AVerKey to switch down its scan rates to as low as 320x200.

**Display Modes Supported:** All standard VGA Modes. 640x480 mode in 256, 32k, 64k or even 24-bit in NTSC or PAL (720x400 in NTSC Max.) 800x600 mode if using Cirrus, CL-GD 6410 VGA chip or Tseng Labs. The device complies with FCC Class A computing device standards.

Lexicor Software U.S.

1726 Francisco Street  
Berkeley, CA 94703

Tel: (510)848-7621; Fax: (510)848-7613

### New Atari Sequencer from Dr. T

Dr. T's Software announces the *Omega II* sequencer for Atari ST, STe, Mega, and Falcon computers. *Omega II* has a

48-track "drum machine" recording with continuous overdubs, punch-in / punch-out, interactive track muting, multiple cue points, and live editing. *Omega II* supports both MIDI Machine Control (MMC) and MIDI Time Code Synchronization. To our knowledge, it is the only Atari sequencer that supports MMC. Its integrated MIDI Mixer has 32 programmable faders, with groups, snapshots and crossfades.

*Omega's Tiger* graphic editing program has lightning-fast interactive multi-track piano roll and drumgrid editing, with velocity stems and "one-touch" note editing. It features click and drag note drawing, graphic paste and fill, and realtime controller and tempo editing. It includes numerous interactive editing, algorithmic composition and performance tools. These range from simple transpose and quantize edits to complex fill operations that create entire new parts. These editing tools let you hear the results of an edit as you adjust parameters. *Omega II* also has flexible Event List Editing with powerful block editing tools, including our unique Scrunch and famous Programmable Variations Generator.

The Graphic Song Editor provides a powerful interface for interactive graphic, object-oriented composition, and has remote song start and a stand-alone song player for live performance. Omega's Open Mode has event-oriented structuring with interactive performance and the power of a programming language. It is by far the most flexible musical structuring in any sequencer.

David Lavelli

Dr. T's Software

Tel: (617)455-1454 ext 225.

### Lexicor Software Releases Raystart

Ray tracing allows you to produce near-photorealistic images and animation. The ray tracer can accurately model such lighting effects as shadow, reflection and refraction, magnification, mirrors, and textured surfaces.

Perfect for use in presentation, multimedia, animation and definitely DTP. It has a built-in Editor very similar to CAD-3D2 from Antic and is 3D2 file Compatible, which means that you can use your Cyber Models (3D2) with it.

Other features include: parallel, point, ambient and spot light sources with additional options for interpolation, mirror, transparency, convex, reflections, shine, texture, density, anti-aliasing and more; functional and analytical objects; intuitive point and click graphical user interface, very easy to use. The Textures Menu has four different types of color deviations (if that is the right word): block, rings, spherical and striped. Each one of these textures can be parametrized with a dozen other features, including the random functions. The Distortion Raster built-in editor allows you to change or dis-

tort a previously defined object via a mathematical function, which can be user-defined.

**System Requirements:** Any Atari ST, STe, Mega, TT or Falcon. **Price:** \$99 US. **Availability:** German version Raystart 1.0, now; English version Raystart 1.0, September 1993. Price does not include shipping and tax. (See Lexicor address given above on page 4.)

## Software Development Systems Announces

### The Atari Compendium

The *Atari™ Compendium* will debut at the Southern California Atari Computer Faire v7.0, September 18th and 19th at the Glendale Civic Auditorium.

Both professional and amateur programmers will find the *Compendium* the single most valuable reference ever published for Atari computers. The *Compendium* contains 860 pages of documentation, tables, and diagrams galore. The table of contents includes these topics: Introduction to Atari Programming, GEMDOS, BIOS, XBIOS, Hardware, AES, VDI, Line-A, Desktop, XCONTROL, GEM User Interface Guidelines, Functions by Opcode, Memory Map, Native File Formats, Error Codes, ASCII Table, IKBD Scan Codes, Speedo™ Fonts, the Drag & Drop Protocol.

Contained in the appropriate chapters are complete function references for each Atari system call in an easy-to-read format. The function reference in the *Compendium* is up-to-date as of MultiTOS 1.08b and TOS 5.0.

Programmers using C, C++, Pascal, Assembler, or BASIC will all find useful information contained in the *Compendium*. Each function call is listed with a binding (in C or Assembler as appropriate). In addition, each function reference includes a *Caveats* section which notes system bugs and which OS version they appear in (and a fix if possible).

The *Compendium* is professionally bound with a four-color cover in standard 7" x 9" format. *The Atari Compendium*, ISBN: 0-9638331-0-3. Suggested price: \$49.95.

When placing an order with SDS directly, please send a check or money order for \$49.95 and \$4.00 shipping and handling. CA residents add 8.25% sales tax. We accept international orders with international money order only. International customers should add an additional \$2.00 S & H. We are sorry but we cannot accept credit cards.

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## Oregon Research Announces New Products

**Personal Finance Manager Plus** (\$69.95)—the perfect solution for home and small business finance and accounting needs. An easy-to-use, mouse-driven, multiple-windowed interface gives you access to multiple accounts, budgets, reports, and graphs. Automate your personal or small business accounting with standing entries posted to multiple accounts and review your financial progress with budget and spending

trend analysis. Compatible with all Atari Computers including TT and Falcon030.

**CALC-3D** (\$54.95)—a true 3-dimensional spreadsheet with an integrated editor and programming language, graphics, and extended statistical functions. Features include: 3D spreadsheets—13 pages x 2048 rows x 256 columns, 3 spreadsheets open simultaneously; up to 3 windows per spreadsheet; works in mono or color and supports all ST, TT, Falcon resolutions; full version requires 1MB of memory but includes reduced half-meg version; graphics module includes bar and line diagrams, pie chart, multiple bar and line graphs, stacked bar graphs, function graph; enhanced statistical analysis including averages and distribution parameters, scatter diagram with best-fitting curve, regression and correlation, and many more; easy-to-use GEM interface; reads ASCII and *Lotus 123* files; compatible with all Atari computers including TT and Falcon030.

**Quartet** (\$79.95)—a 4-voice music composition and sound sample sequencer for the Atari. Runs on any Atari ST or TT and does not require any special hardware. Compose music on four scrolling staves by mouse input or playing on a MIDI instrument. Choose from over 100 instruments and sounds included with *Quartet*, or import your own from the *Replay 16* or *Stereo Replay* sound samplers (sold separately). Up to 20 instruments can be used in a piece of music. Play back through your television, monitor, *Replay 16* or *Stereo Replay*'s sound sampling cartridge. Digital processing is available for manipulating samples. Routines are included for playing songs from GFA or Hi-Soft BASIC 2, C, or assembler.

**Replay 16** (\$249.95)—the first low-cost 16-bit sound sampler for the Atari ST. The hardware cartridge contains 16-bit Analog-to-Digital, and Digital-to-Analog converters. The system can record from any suitable sound source such as CD player or any AUX or Line level signal source through the stereo phono inputs. Stereo phono outputs are provided for playback to an amplifier or mixer. The *Replay 16 Editor* software is fully desktop and window-oriented, allowing samples to be loaded and edited separately. The editor contains many sophisticated editing and effects commands as well as a sample track sequencer, and MIDI sample dump. *Drumbeat 16*, included, is a fully configurable sample-based drum machine. *MidiPlay 16*, also included, transforms your ST into a flexible multivoice MIDI keyboard emulator. Samples can be assigned to any individual note or range of notes in a 9-octave range. *Replay 16* is fully compatible with Breakthru software.

**Stereo Replay** (\$169.95)—High quality stereo sound sampler and output cartridge for the Atari ST range of computers. Record in high-quality stereo from twin phono input sockets. Twin phono outputs provide the user of a standard ST, STF, STFM, or Mega computer with high-quality stereo output. Atari 1040STe, Mega STe, and TT users may play samples through the stereo outputs in their computers. Included is the advanced Stereo Editor software, allowing the user to load 8, 12, or even 16-bit samples in mono or stereo formats, and freely convert between them. Sample translations are handled automatically, allowing effortless cut-and-paste between sample types. Powerful editing functions include looping and

cross-fading, as well as effects. The Stereo Beat program allows "kits" of samples to be loaded and sequenced, and responds to MIDI start, stop, and sync commands. Includes routines for playing samples from assembler, or high-level languages.

*Stereo Master* (\$79.95)—a low cost, high quality, 8-bit stereo sound sampler. The sampler cartridge plugs into the cartridge port and allows you to sample and analyze sounds input from any stereo source such as CD players, modify the way they sound with real time effects, or save them to disk. With powerful editing software, *Stereo Master* provides all of the power and flexibility you would expect in a professional audio editing suite.

*VideoMaster* (\$139.95)—integrated personal multimedia video and audio sampler for the Atari ST. Digitize monochrome, grey scale or color images at up to 30 frames per second and combine them with sound from the integrated sound sampler. Easy-to-use editing and video sequencing software allows the easy creation of your personal video movies, complete with sound. For all Atari ST, STE, and TT computers.

*Sequencer One* (\$39.95)—a high-quality low-price MIDI sequencer that's ideal for the beginner or semi-professional user. Full MIDI capabilities with support for four channel sample replay through the computer's own sound output (in stereo where supported). Sample replay can be done at the same time as playing MIDI instruments. Features: step time entry over MIDI or from computer; 32 tracks; track and cue sheet screen; individual note editing screen music arrangement page; and powerful global editing options (e.g.; quantize to correct timing).

*Sequencer One Plus* (\$169.95)—All the features of *Sequencer One*, plus many more! Includes revolutionary Diamond Drag note editing system. Unique juke box page allows up to 32 songs to be chained together into an "album" or "live" performance. Also provides tempo map screen, extra sample replay facilities (e.g. external 8-bit sample replay cartridge support on Atari), MIDI sysex handling, additional global editing options, and much more! A 1.5 hour instructional video is included to help you get the most out of *Sequencer One Plus*.

*Breakthru* (\$349.95)—a 64-track professional MIDI and sample sequencer. Includes all the features of *Sequencer One Plus*, plus conventional music score notation, dedicated drum editor page, simultaneous multi-track recording, sample palette screen, and much more! *Breakthru* also has a unique advantage over other programs; at the same time as triggering MIDI instruments, it can play back high-quality 16-bit samples through a *Replay 16* sampler plugged into the cartridge port! As with *Sequencer One Plus*, but with superior results, 8-bit samples can be played through the computer's own audio hardware or through a range of 8-bit sample replay cartridges. A 1.5 hour video is included to help you get the most out of *Breakthru*.

*Breakthru Plus* (\$399.95)—All the features of *Breakthru*, but supports 32 MIDI channels instead of 16. Very handy for

users with more than one MIDI instrument. Includes a hardware interface, which plugs into the modem port, providing an extra MIDI output socket.

*The Hit Kit* (\$49.95)—music composition system and ideas generator to use with Oregon Research sequencers. Create professional rhythm tracks, bass lines, and other accompaniments in a range of popular styles. Mix and match to easily produce complete MIDI sequences.

*The Sample Series* (\$19.95 or 5/\$79.95)—A collection of 8-bit digital sound samples for use with Oregon Research sequencers and some other programs. There are five volumes in the series: Percussion & Effects, Guitars & Strings, Brass & Woodwind, Synth & Vocals, Piano & Keyboards.

Oregon Research  
16200 SW Pacific Hwy., Suite 162  
Tigard, OR 97224  
(503) 620-4919; FAX: (503) 624-2940  
Genic: ORA.TECH

## PROGRAM UPGRADES

### MegaType Upgrades Entire Product Line!

The long awaited upgrades to *all* of our software are about done. Falcon, MultiTOS, all resolution compatible versions will be shipping within the next 60 days. The whole lineup, including *FontVerter*, *Font Designer Plus*, *MegaKern*, *Bitmaker*, and *Type 1 Converter/True Type Converter* will all have new versions. (Yes you did read *True Type Converter*!) The new version of *Type 1 Converter* will now also include conversion of True Type fonts from Windows into .ECF format, which can be loaded into *Font Designer Plus*, or converted to *Calamus* or *PageStream* formats with *FontVerter*.

We have tried to add into the various programs all of the suggested ideas users have come up with. Registered users should be watching their mailboxes for information and pricing on the upgrades, and information will be available online as the upgrades are ready.

MegaType SoftWare  
P.O. Box 645  
South Bend, Indiana 46624  
Tel: (219) 288-7468

### Magic Spell Updated

*Magic Spell* is a program that is both educational and fun. While the purpose of the program is to improve your spelling ability, the result is that you learn while having fun! Originally designed for children, *Magic Spell* can be enjoyed by spellers (or mis-spellers) of all ages. For a simple \$7.00 "Fair Shareware" payment you and your family can both improve your spelling and play a great game.

*Magic Spell* offers three levels of difficulty. Make your 10 best words from the available letters in each round. Points are awarded based on the length of the words and the letters that are used. A bonus is awarded if one of your words turns out to be the "secret word." After each round, you can check from the 2300+ word dictionary for words you could have

used. If the word is not in the dictionary, you have the option to add it. The package also comes with a separate editor that allows you to add, delete, or change words to the dictionary file.

The program runs in ST medium and high resolutions. Look for *Magic Spell* on GEnie, Suzy B's Software, or direct from the author:

T. Savino  
2516 Scarlet Oak Ct  
Sarasota, FL 34232

## INDSTRY UPDATE

### SDS Offers Refund

SDS has decided to refund all customers currently waiting on upgrades from the *Deskjet Utilities Pak* to the *Printer Utilities Pak*. To verify that you are listed among those being refunded you may contact SDS via E-Mail.

This decision comes after a long wait for this product, which we deeply regret. We have *never* left the ST community nor have we gone out of business. These rumors are simply untrue. We did change phone numbers to (310) 430-0364.

The *Printer Utilities Pak* project has not been abandoned and we are still working on ways to bring it to market. When it does, those people who originally paid and have been waiting so long will receive a *complimentary* copy of this package.

Most of the functionality in the original PUP pack was based on *FSMGDOS*, which was abandoned by Atari quite a while ago. While *Speedo GDOS* is a much better product, our custom drivers are not compatible. We are working with Atari to license the source to the driver portion of *Speedo* so that we may create drivers that will allow our product to function.

Please give enough time for the USPS to deliver the checks prior to calling (2-7 working days). Again, we apologize for the inconvenience, but we promise to continue to work to benefit the Atari community as a whole.

—Scott @ SDS

GEnie: S.SANDERS2  
Software Development Systems  
996 Redondo Ave. #404  
Long Beach, CA 90804  
Phone: (310) 430-0364

### Atari Vendors/Clubs

Send announcements of your Atari products or Atari shows to the ST Editor, Steven Kiepe, 12003 Deerfoot Road, San Diego, CA 92131. Send E-Mail to GEnie: S.KIEPE. The editor reserves the right to "trim" announcements as necessary. Software or hardware for review should also be forwarded to the ST Editor as noted above. All product names are copyrights or trademarks of their respective owners and are listed for informational purposes only.



# Don't Be A Solitary Atari.

The largest and longest standing group of Atari® users in the world shares its problems and solutions online every day in CompuServe's Atari Forums. And you can join them.

Find the latest software, like the new desktop publishing program for the ST. Learn how to run Macintosh® and MS-DOS® programs on your Atari. And pick up helpful game tips from experienced players.

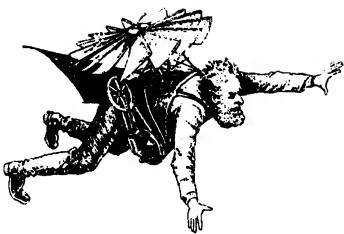
Need technical help? Atari personnel and most third-party software and hardware vendors are online

every day. You can even provide recommendations as they develop new programs and products. There's no better way to get more out of your Atari.

To join CompuServe, see your computer dealer. To order direct or for more information, call 800 848-8199. In Ohio and Canada, call 614 457-0802. If you're already a member, type GO ATARI at any ! prompt.

**CompuServe®**

## STanding STill



by  
**Steven  
Kiepe**

## The Season's Over

This issue marks the end of this year's computer show season, at least as far as Atari is concerned. As we go to press, the Glendale Show, often referred to as the highlight of Atari's North American shows, is drawing to a close. The Glendale show is one event I schedule all my other commitments around, and this year it occurred on my birthday (which would have justified a lot of "discretionary spending"). Unfortunately, I was unable to make the show this year, being separated from Southern California by over 3,000 miles. Initial reports were encouraging, however, even without a cash transfusion from my bank account to participating vendors. It appears that John King Tarpinian and H.A.C.K.S. have, once again, arranged another outstanding show.

**Market Pluses and Minuses.** On a positive note, there *are* new products appearing in the Atari market, especially for music applications. Additionally, there are still a lot of products for older machines (pre-Falcon) making their U.S. debut as the barriers between the European and U.S. markets continue to crumble. On the other hand, the breakthrough that Atari needed and had hoped for, acceptance into the general home market, appears less and less likely to occur. Fear not though, there is little need to scrap your current Atari computer, at least if it is still doing what you need of it.

We tend to get dazzled by the latest gadgets on the market; America's fascination with speed, bells and whistles is legendary. Why do market researchers "repackage" older, proven products in a new wrapper? Because, almost inevitably, sales will increase, at least for a while. *Consumer Reports* noted how one drug manufacturer repackaged a children's medication with new container and labeling but the only significant change was that they had cut its strength in half and increased its price! Still, that "new" sticker on the front of the box probably snared many a concerned parent, focused only on getting the "best" for their sick child. We need to move away from this emphasis on the sensational (and I have a particularly bad case of it right now; thank heavens I locked up my credit cards) especially during this period of transition for the computer market as a whole.

Consider that there is still a fairly significant support base for eight-bit machines even at this late date. This fact bodes well for the longevity of all of our computer systems,

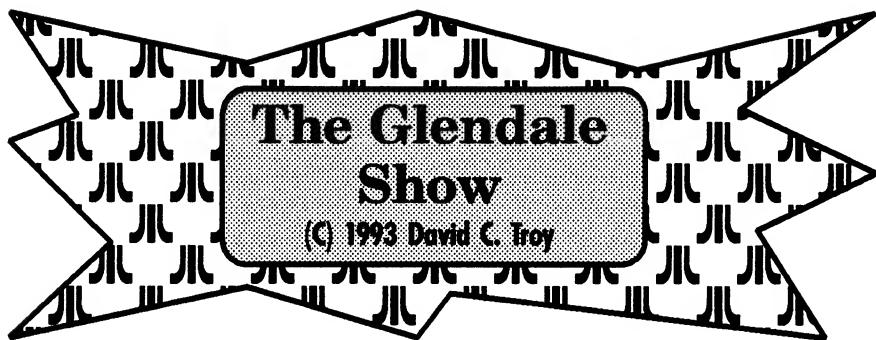
especially those as powerful as the *ST/TT/Falcon* series. For the long run though, the hand writing is on the wall. In my opinion, the likelihood of Atari computers ever becoming other than a "niche" machine is virtually nil. First time purchasers of Atari computers are few: most *Falcon* sales appear to be made to current users of other Atari computers. New "lifeblood" has yet to appear, and that has resulted in more and more developers dropping out of the Atari market. A very few developers and distributors have emerged as the primary nexus for most new software (especially imports), but the overall developer base continues to contract with no signs of recovery on the horizon.

The bottom line? Use what you have to the utmost, but don't expect a miracle revival in the future. All computers lose cash value and begin to lag the market within seconds of their purchase. To get the most effective use of your limited dollars, you need to squeeze all utility possible from your investment by using it until it no longer meets your needs, *not* just until you crave newer packaging. It's true that I can't, in good conscience, recommend Atari products to most first time computer purchasers unless all of their likely current and future needs can be met by the Atari products available *now*. However, for most of us, the Atari computers that we currently own should suffice for many years to come. We have already made our large initial investment; the amount required to "service" and "update" that investment is likely to be far less than that required to begin anew.

**AtariUser is Back!** A bright piece of news for those readers who want more than two U.S. based Atari-oriented magazines to choose from is the reappearance of *AtariUser* magazine. The latest issue of *AtariUser* made its "debut" at the Glendale show in a bright new cover, and future issues are planned. In an effort to win new readers and quell the fears of the faint-of-heart, publisher John Nagy is offering a \$5 for three issues deal to re-introduce the Atari community to his revitalized magazine. Good luck, John, we wish you well.

**Errata...** In the September issue, the "Letters to the Editor" column contained a note from one reader asking about the status of Goldleaf Publishing's *Wordflair II*. In my reply, I made reference to a new phone number for Goldleaf but then somehow failed to include that number (something happened in the layout process, I guess). The response should have said that Goldleaf's technical support phone number is (415) 381-7717. Sorry about that, folks!

**Time to Move.** If, for some reason, you need to drop me a line (or a package, cash, or negotiable bearer bonds...), please check out my new mailing address in the front of the magazine. My family and I are moving back to America's finest city, San Diego, California in early November. And that means that next year I will once again be able to attend the Glendale AtariFest. Every day, and in every way, I'm getting better and better!



"Hi"

I was born in San Bernardino, California in late '71. My dad left the Air Force in 1976, and we moved out here to Maryland. I have only been back to Southern California a handful of times since I left, and each time I am amazed by the L.A. air (new Steven Bochco series where successful young EPA investigators do spot emissions checks on the highway and occasionally question its morality?), by the sun (which never seems to be anywhere but in the center of the sky), by the amazing variety of businesses (Live Nude Girls Girls Girls and Sushi Bar on amazing Century Boulevard), and by the penetrating sense of ennui which seems to endow each resident with the right to be doing whatever he or she feels like doing. This is the west coast, or at least the segment of the west coast that encompasses Los Angeles, Orange, San Bernardino counties and its feathered fringes. And I don't entirely understand it.

I often try to imagine what my life would have been like if I had not left San Bernardino, because now I consider myself to be an affirmed "Easterner." In the L.A. area, travelling 50 miles to get essentially across town (Glendale to Anaheim, Pasadena to Santa Monica, Newport Beach to Sierra Madre) is not at all uncommon. It's half that distance for me to get from my house near Annapolis to downtown Baltimore. Nor is it uncommon to sit motionless, as if it were a parking lot, on I-10 at four o'clock in the afternoon. At first I was a little afraid of things like drive-by shootings, riots, my rental car being run off the road, and earthquakes, but I looked around and realized that nobody else seemed too freaked out, and gradually my fears evaporated.

I think it all comes down to control. In California, you have to surrender control to the size, variety, and beauty of the place. San Bernardino County *alone* is more than **two and a half times larger** than the entire state of Maryland, and is the largest county in the United States! San Bernardino County is about 52 times larger than the county where I live (Anne Arundel County).

How can you not be dwarfed by this? It's like walking on the moon or something! For every single step I take in Maryland, I'd need to take 52 steps in California! For every mile I drive, it's fifty in California!

nia. Obviously this scale is exaggerated, but things really are on a different scale out west. Those of you who live out that way probably think I'm nuts and that we all live in a bunch of dollhouses with miniature streets and solvable problems out here, but believe me, (and those of you from the East coast will understand me), there's something about the ocean being on the wrong side that makes things undeniably *different!*

### The Show

This was my first Glendale show. I'd never really had reason enough to go before, but this time we wanted to show off the new *Straight FAX* software (version 2.0), so Jennifer and I headed out, along with Charles Smeton (the author of *Straight FAX*).

The show was held where it's always held (the Glendale CivicAuditorium), and many dealers and developers made the trek out. Oregon Research showed its soon-to-be-released *Diamond Back 3* (with tape backup support), along with the Replay / Stereo Master / Video Master digitizers they are importing from England. Codehead had a new version of *Warp 9* (3.80) that includes a whole extra disk full of Extend-O-Save screen saver modules. Dealers, The Computer Network and Mid-Cities, were present, each with an impressive layout of goods. Mid-Cities even featured a paper-mache volcano, which erupted occasionally (beckoning show goers to visit their Island of Values while spewing out smelly smoke). You had no choice but to respect it.

Migraph introduced their new Colorburst scanner for the Falcon, which consists of a 262,144 color 4 1/8" hand scanner, similar in concept to their previous black and white scanner. At \$399, the results (obtained through the bundled Color Kit software) looked good and dealers (like me) should have the new scanner towards mid-October, shortly after you read this. A TT version of this scanner is being considered, but right now they need to know you're interested. If you're a TT owner who's yearning for an inexpensive color scanner, drop them a note.

Clear Thinking's Craig Harvey was present showing *EdHak*, whose name is being changed to *Edit Pro* shortly. ICD's Tom Harker came alone, toting quantities of Links, AdSpeeds, and other host adapter re-

lated stuff. Darek Mihocka showed off the new Gemulator 3.0 which includes support for sound, the serial port (up to 9600 baud), VGA 800 x 600 graphics, and more. It's faster than it ever has been (a 486/66 runs just slightly faster than an 8MHz ST). I would say that, at this point, Gemulator is a neat "gadget," but is only getting better from here.

It is possible to install 64K Mac ROMs onto a Gemulator board (in addition to TOS ROMs) and actually run the old Dave Small Magic Sac Mac Emulator under Gemulator. Gee, then you could run Insignia Solutions' Mac program **Soft PC** so you could run PC software. Wouldn't that be cool? A PC emulating an Atari emulating a Mac emulating a PC. Could you then re-run Gemulator? Where will it end?

Megatype's Don Turnock announced that he will soon add support for Windows TrueType fonts to his *Type One Converter* package, a task he reportedly is loath to do. Apparently, the TrueType format is very poorly thought out when compared to the Type One format created by Adobe.

ChroMagic and WizzTronics both showed 14MB RAM expansion boards for the Falcon. Canoe Computers showed a cartridge-based IDE hard disk interface, which they have prototyped. They are trying to gauge public interest in such a product.

It's All Relative showed off *Photo Show*, an innovative package for the Falcon that allows you to access Photo CD disks and create slide shows with music that can be played on a standard TV, an Atari RGB monitor, or a VGA monitor. They also have a genealogy package.

*AtariUser*'s John Nagy had plenty of copies of their newest issue available. The magazine has been on a nine-month hiatus while they reorganized, and, apparently, they will be back with monthly issues for at least until the end of the year. The crux, they say, will be advertiser support.

*RatSoft BBS*, heralded by many as the best BBS program for the ST, is now being marketed by J & J Computers of Salt Lake City and they were present, along with the program's author, Steve Hughey, showing off its capabilities and selling the program for about \$70. Steve and RatSoft have come under heavy scrutiny and criticism after an extensive report on piracy was done by the IAAD earlier this year, and showed that not only was *RatSoft* the primary BBS program used by pirates, but that the RatSoft support board was itself a pirate board. Since J&J Computers began marketing the product, it has been promised that there is no longer any pirate component to RatSoft at all. Perhaps the pressure of actually selling a software product is enough to change some ways. I have received an evaluation copy of the program and will report my findings. Provided these guys are seri-

ous and aren't running pirate boards under different names, I wish them the best of luck. Piracy is just so boring and the ST market just can't afford it. If you pirate ST software, consider (seriously!) the impact it has on the market. For every copy of a \$60 program you steal, you're taking as much as a \$60 incentive for future development away from the developer. And it crushes the market, pure and simple.

Best Electronics had their usual assortment of hard-to-find parts and goodies. Steve's Software and

Computer Games Plus were also present, selling quantities of stuff.

He's fine and everything, but sometime when he has a chance, Dave Small will tell you why he couldn't make it to this year's show. He was missed.

*...the graphics were incredible, unlike anything I have ever seen on a system that inexpensive.*

## Us

We, of course, introduced the new *Straight FAX*, version 2.0, and it includes "the package." Before now, *Straight FAX* never really had a box or anything. It was just a manual with a disk bound inside. Well, all that's changed. As of version 2.0, expect to see our fancy new box on your local dealers' shelves. We **sold out** of *Straight FAX* manuals, between new copies and upgrades. That's almost 70 copies! Needless to say, we were very pleased. We also had other stuff like font packs, scanning trays, RAM upgrades, Beetle Mice and other Toad goodies. And we collected several hundred names for our mailing list and our next catalog, which will be out in the next few months.

## How Many

Everyone agreed that attendance this year was down from last year. My unofficial estimate (based on piecing together a few numbers I heard, along with my instinct) is that there were about 1,300 total visitors, which makes this show, by far, the largest Atari show held in 1993. It is, unfortunately, as much as three times smaller than it once was. But that's life in 1993. Being unusual just isn't popular anymore.

## Atari

Atari sent down Eric Smith (father of MiNT and MultiTOS), Bill Rehbock (Technical Services Ringmaster), Mike Fulton (Developer Support), James Grunke (Music Markets and Sales Manager), and Bob Brodie (Director of Communications). On Friday night, there was an Atari-sponsored developer workshop that highlighted some of the technical aspects of the new MultiTOS, a developer CD-ROM they're assembling, the new Resource Construction Set (version 3) and more.

Particularly exciting (and featured at the workshop) is a new book published by Scott Sanders of Software Development Systems called the **Atari Compen-**

dium. The **Compendium** assembles all information about operating system calls and structures from several different sources and attempts to correct many errors present in these individual sources. The book is over 850 pages long, is perfect bound with a full color cover, covers everything from TOS 1.0 through TOS 5.0 (a new Falcon TOS) and includes in-depth coverage of MultiTOS. Make no mistake, the **Compendium** is not a "how-to-program-the-Atari" book, a discussion of C programming, nor a book of recipes for apple pie. It is, quite simply, a complete reference for all Atari operating system calls, ranging from the VDI to the AES, BIOS, XBIOS, and GEMDOS. The **Compendium** sells for \$49.95 retail and is available direct or from dealers like me. I suspect that the **Compendium** will become the defacto reference guide for many professional and amateur Atari programmers.

### Jaguar

On Saturday night I was lucky enough to visit with John and Julie Eidsvoog at their lovely home in Los Angeles, along with some other developers, dealers and some folks from Atari. We had a minimum of two sources of entertainment. One was one of those bizarre pictures (which I still haven't "seen" yet) where you defocus your eyes and you're supposed to be able to see the "amazing three dimensional scene." I am still skeptical. Second was a Jaguar that Bill Rehbock brought along.

I only really saw two games (although there were a couple of others there): Tempest and a Defender-for-the-Nineties-ish 3D scrolling shoot-'em-up. But the graphics were incredible, unlike anything I have ever seen on a system that inexpensive. (The last time I saw anything like it was on an SGI Crimson workstation, and those sell for over \$30,000). I don't know that much about the internals of the system yet, but the sheer bandwidth of the graphics hardware allows for completely realistic 3D shading, seamless animation, zillions of colors, several different scrolling backgrounds and totally playable and responsive games. The games I saw were cartridge based (I believe that Atari is calling the new cartridge format MegaCart) and used huge EPROMS. I don't want to guess at the size of the games right now, but I am guessing they might have been 2MB in size.

The RISC architecture of the machine allows it to do some amazing things. For instance, a matrix math operation (which requires an elaborate pattern of multiplication and addition) can be executed in just one instruction on the Jaguar. This allows for incredibly fast manipulation of objects in space, be it two dimensional or three dimensional. Apparently, the contract that Atari has with IBM for the manufacture of the Jaguar involves more than just manufacturing; IBM is potentially interested in the Jaguar technology for other projects.

3DO, a consortium headed by Tripp Hawkins, formerly of Electronic Arts, is creating a video game hardware standard, which will be the Jaguar's largest competitor. Apparently, though, the 3DO cannot perform as quickly as the Jaguar, most especially because the 3DO requires you run a multitasking operating system in the background at all times (with up to as many as 25 processes running simultaneously). The Jaguar's hardware can be accessed directly and quickly, meaning that the Jaguar will end up being more responsive and will have better graphics than the 3DO.

Another competitor for the Jaguar (but not for a couple of years) will be the machine forged by the recent partnership of Silicon Graphics (the undisputed leader in 3D rendering technology) and Nintendo (the giant videogame company with legal {grin} antitrust tendencies). Once again, Atari is emerging with hardware far superior to anything else available right now. The question will be whether they can build enough momentum to gain market share before the rest of the world catches up. The Jaguar will allegedly be introduced this Fall at a \$200 price point in New York and San Francisco, in time for Christmas, with further shipments expected to take place early next year. Atari has already said that it expects 80% of its business to be Jaguar related a year from now.

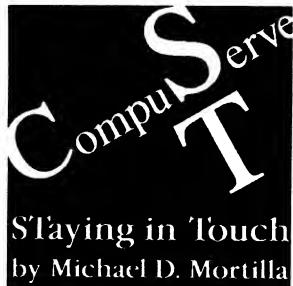
The Jaguar has extensive possibilities as a multimedia engine. Combined with a CD-ROM player, cable TV and a phone line, a Jaguar could do whatever it wanted to do. We'll have to see how this develops.

### Last One

I make a habit out of thinking that each Atari show will be the last—it means I always take the time to talk to the friends (developers and customers) I've made over the past 8 years. I don't know whether The Glendale Show will survive to Version 8.0. It all depends on how things go for the next year I suppose—The Falcon, the Jaguar, etc.

### After the Show

Jennifer, Charles, and I stayed for a couple of days after the show and went and saw Joshua Tree National Monument. It is amazing. You could go to high points on rocks and look down on places that are so barren, so huge and so beautiful that you wonder if your eyes will ever have a chance to see so much area at one time ever again. We ate at a Thai restaurant, out in the middle of nowhere, and went to a bar that featured cappuccino and beer and had signs up for international pen pals. In a town that had a population of 300. Only in California. I am happy to have been born there.



# CompuServe vs. Copyright: What's the Score?

With the recent announcement from CompuServe that they will begin a CD-ROM section soon, the amount of productivity available online will be truly astonishing. Falcon owners already know how powerful their machines are, but imagine a world where you could access anything you needed instantly. It brings to mind scenes from Star Trek: tell the computer "chicken soup" and within seconds, there's a steaming bowl at your finger tips.

That may be a little way down the pike for your PC, but imagine the possibilities. Producers of multi-media productions would be able to list the songs, pictures, slides, video clips and effects they needed and have them downloaded to their writable CD-ROM machine. No more searching for obscure albums to complete their projects. Sounds from history, speeches from John Kennedy, Martin Luther King, Neil Armstrong from the Moon or Nixon from the White House could all be accessed right from your PC. And if you wanted to incorporate video images, the same access would be possible. For the producer, this is a great tool, but for the average business owner, it could give him/her the tools needed to create his own multimedia presentations.

With this convenience comes a price. Not only are we talking about the price of online time, but the price of licensing fees for use of material not in the public domain. If you want to use a Beatles song, a Garth Brooks tune or a Madonna score, you have to get permission from the publisher. It would be inconceivable that users of the CD-ROM section on CompuServe would be able to download music, video, animation and other copyrighted material and *still* have to negotiate for the use of the property. What we will probably see is a long-awaited license arrangement for use by those downloading intellectual property.

A similar problem existed in the music industry with the invention of radio, TV and the record player. Licensing was easy enough if you were going to play the record in your home, but if you were going to broadcast it to millions of homes, then the artists and their lawyers had to get a share of your profits. Enter BMI and ASCAP (Broadcast Music Inc. and the American Society of Composer, Authors and Publishers.) The writers or publishers of a work register their

name with BMI or ASCAP and send them a list of their works, which is logged into a computer. When the work is then performed on TV or radio, the titles are sent to the licensing agents and credited to the proper parties. This is the fairest way to handle usage, but not always the most practical.

In "public places" like shopping malls, restaurants, etc., a "blanket license" is issued. That means for a set fee, the user can access as much of the music in the BMI or ASCAP catalogue as they wish. A restaurant might pay under \$100 for such a license, while a shopping mall could easily pay thousands of dollars to cover this fee. The down side of the blanket license is for the writers and publishers. Since no works are specifically reported, the licensing agents base distribution of these funds on the reports of broadcasters (assuming that the music being used on radio and TV is the same used in public places.)

On CompuServe and other services providing CD-ROM access, the TV-radio model would be easier to implement and fairer to the artists. Since all the distribution is via computer, then a detailed listing could be kept for distribution of fees. The blanket license would be better for the end user, but it is unlikely that would be the way the licensing would go.

There has been a controversy on CompuServe and other online services for years now. Many forums provide access to a wide range of copyrighted material. These include scans of protected photos, graphics and text, sounds in the form of samples and MIDI files, to name a few. Each has its own particular problem, but let's look at MIDI files, since that is one particularly complex area.

In several forums on CompuServe, there are a large number of MIDI files available. In the Atari Arts Forum (Go Atari Arts) and the MIDI forums alone, there are MIDI files of everything from classical works to the latest tunes off the Billboard charts. The way they get there is that the members of the forums "sequence" the works into a music program and upload them to their favorite area. The member gets a credit on his account for the upload time, CompuServe gets the file and the income from the download time by the members who access the file, and the artists and publishers get nothing. Literally!

Mention this aspect of MIDI files in a message area and the first thing you'll usually see is a reply akin to, "Oh, no! Here we go again!" There are usually several sides to this issue, but basically it's the writers vs. the users. The writers argue that they want money for the use of their work. The users argue that they *already* paid for the use in the download time. The "truth" (as I see it) is that the only one who is benefiting financially is the online service. The artists and publishers never see a penny of the access dollars, and both the SYSOPs and CompuServe reps are usually careful to remain quietly in the background when the issue is raised.

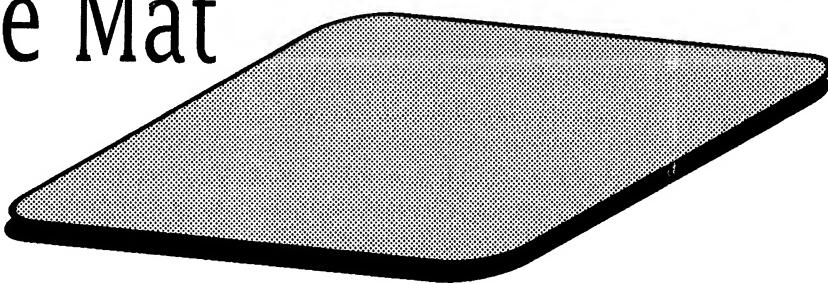
The problem gets compounded by the fact that the person uploading the file probably performed the work or had a friend do it. As such, he may be entitled to a share of the profits. It's sort of like Frank Sinatra singing a song from a Sondheim musical. Sondheim gets paid and Sinatra gets paid every time the song is played on the radio. But the member of an online service *has* gotten paid! He got credit to his account—arguably—and as such may not be entitled to additional income. Not all the MIDI files available online are quite as pleasing as Old Blue Eyes' rendition of "Send in the Clowns," but there are a number of well done sequences out there.

It would be relatively easy (although quite time consuming) to simply delete all the MIDI files of protected works from the online services. But that would not really serve much of a purpose. What needs to happen is, every time a file is used, it is reported to BMI, ASCAP or directly to the writer or his publisher (usually done through the licensing agents, but not always.) This *would* require that the online service provide the information and might be a cost that would be passed on to the end user.

The time when the MIDI files are freely uploaded and downloaded may be coming to an end soon. With the advent of CD-ROM access on CompuServe, we may see a change in the way the things we upload and download are paid for, reported and handled. With Atari being so heavily geared toward music, and the newer machines being so "multimedia" friendly, the Atari forums may also see a big change. Hopefully, we will see an increase in activity as opposed to a stifling of information exchange. Whatever the result, that little box of metal and plastic sitting on your desk is about to change the way you use data. Maybe not tomorrow, but sooner than you think. And we can't just sit back and enjoy the show. We *are* the show!

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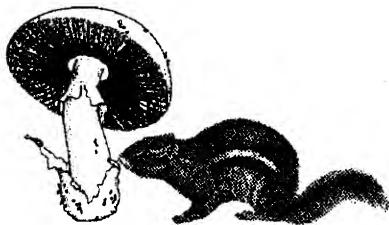
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**ST Informer**



# Retouche Black And White Professional

## Photo-Manipulation Becomes Affordable On The Atari

### *Running Out of Ram* by David Barkin

### Part Two

Last summer, *Retouche Professional* provided a sad highlight to my computer using days. I had brought a .TIF file to a service bureau to be printed at 2400 DPI. This was a photographic collage of three children in various poses, superimposed on a background of greek ruins. The photo gave the impression that there were a dozen individuals, not just three. This was my first serious work with *Retouche*, but even as a first effort, it looked impressive. The service bureau owner agreed with this judgement and demonstrated this agreement in a most painful way. He called in the co-renter of their studio. This man, Howard, is a professional photographer. He spends hours, days, months, manipulating his creations in his darkroom, to create special effects. An elderly gent, he struck me as a fairly interesting person. George, the service bureau owner, started off the resulting conversation by praising Howard's work. "Yes, Howard is a great photographer. Hey, Howard, why don't you show Dave some of your creations?"

Apparently, Howard is the shy type, but this kind of encouragement was hard to resist. He went back to his half of the studio and retrieved a number of his photos. I worked through them. Howard is, indeed, a good photographer. What I didn't realize, however, was that there was what could be called bad blood, or friendly animosity, between these two guys. After giving Howard enough rope, so to speak, George then handed him the lino output of my collage. At this point, the output was a 12 by 19 photograph. It looked stunning. George turned to Howard, "Took him all of two hours to create on his computer. What do you think, Howard?" Howard's response was to break into tears.

After he left, and he left for the day, George explained that Howard was electronics illiterate, that learning the computer was the equivalent of reconstructing the great pyramids of Egypt by hand. George had been telling him, in an extremely friendly, good hearted way, that he was doomed; his darkroom equipment was antiquarian and either suicide or learning a new trade, like garbage collection, were his best options. I left to the sound of intermittent chuckling from George, whose day had been made. Indeed, so pleased was George that he didn't charge me for the printout. I can appreciate a little good natured humor but, oh, well. Howard's gonna have to change.

#### The Computer Darkroom

Now the truth is that photo-manipulation software does not eliminate the skill of photography. *You still have to have good images to work from in the first place.* But the computer will, indeed, if it already hasn't, doom the conventional darkroom. Effects that would take hours in a conventional darkroom will take seconds on the computer. Plus, there are a number of things the conventional darkroom simply cannot do at all. Last month I introduced *Retouche Professional Black and White*. This month I'm going to demonstrate some of these capabilities.

But first, a little word of caution. A week ago I received *Retouche CD*. This is the color version of *Retouche*. I reported that *Retouche* did not need a graphics card. Such is not the case with *Retouche CD*. While you don't need a separate monitor to run either program, *you do need a graphics card* to use all the color capabilities of *Retouche CD*. You can work on color separations, but, without a graphics card, you can only see the results as gray levels. I've been meaning to buy a graphics card, but now I'm being forced to. This card will not arrive until the end of October. This is because my dog foolishly blew his trust fund on rubber squeaky toys, so a detailed description of *Retouche CD* will have to wait. At the same time, the American distributor of *Retouche* informs me that the program will run on the Falcon. To rub salt into my wounds, he also tells me that the Falcon will need no graphics card, unless you want to use the two monitor option. Other news, without going into specifics, is that a number of other photo-manipulation programs will soon be released. But that's the future. *Retouche* is out now and I haven't seen, let alone used, these other programs.

Keep in mind that the author is assuming that everyone read last month's description of *Retouche*, and hopefully has it available to refer back to.

#### Manipulating Photos

The following is a description of how I restored a number of photos. This is not meant as a primer. Rather, I want to provide a "feel" for the process. This information cannot be fully absorbed unless the program is on your computer, but it does show what can be done. Toward the end of the article is a summary on manipulating levels of color.



**Figure 1.** In figures 1a, 1b, and 1c respectively, we can follow the restoration of this image. The process took one half hour.



**Figure 1d.** The result of this restoration. By no means is this complete, but it gives you the idea.

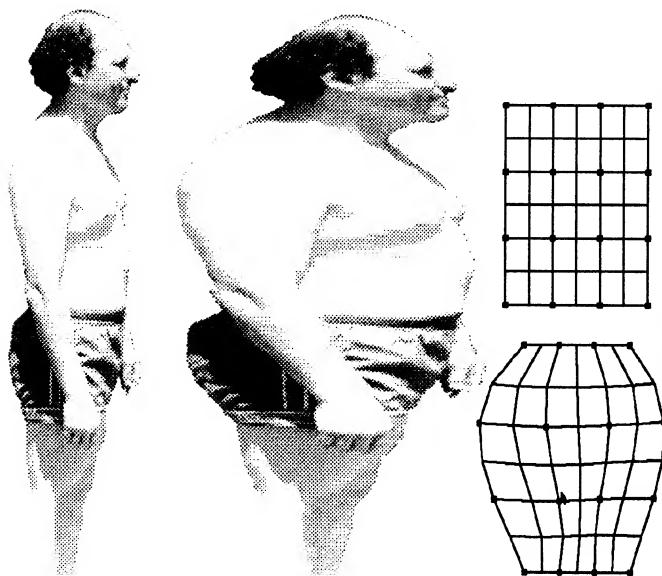
The first demonstration, shown in figure 1, is a 1932 *demonstration* in favor of unemployment insurance. My father, as well as participating, took the photo. This image has seen better days. If my father hadn't told me what it was, I would have assumed that it was an early Macy's Thanksgiving parade. Figure 1a shows the original photo. (All images used for these demonstrations are 150 dpi .TIF files.) First, I used the contrast control to straighten out what was dark and what was light. Essentially this acts to increase light and dark between neighboring pixels. The result is figure 1b. So far so good, but everything is still blurry. For figure 1c, I used the "sharpen" special effect at maximum size and power. This cleared up the faces. The sharpening effect works much like the contrast control, but grabs chunks of pixels and heightens contrast between these groups. There are a number of choices, small groups, medium groups or relatively large groups. Within these choices you can also set the power and what colors are affected. The nice thing about all this is the undo buffer, which works with all aspects of *Retouche*. If you're not happy with the particular effect, undo it and try another setting. This, as well as other effects, can be speeded up by using the block function to rubber band a small area and just try your effect within the block. In other words, you can take seconds to find out what will work.

At any rate, the sharpening tool did its job. It, unfortunately, has a side effect of sometimes leaving "holes" in the picture. These are not shown because I immediately used the "soften" effect, which, lowers contrast between groups of pixels. I used soften at a very low power. Just enough to get rid of the holes. Figure 1c is the result.



**Figure 2.** This was a relatively simple job of just increasing the gray values. Indeed, the image could have been scanned in darker. But it's easier to add than subtract.

Finally, I noticed that this photo had been brutally tortured and beaten. There were scratches, washed out areas, where the image was gone completely. Until I got to figure 1c, I didn't even realize these problems existed. I then selected the duplicating pencil. By positioning the duplicating pencil next to an intact window, that area was now stored. I would take the duplicating pencil to the damaged section of the image and paint in the window, or paint in the brick, or whatever. The result is figure 1c. If anyone wants an archive of old lefty's, bringing forth the social benefits we take for granted, this is one of them. This entire process from scanning to printing took 30 minutes. Don't even try to guess how long it would take with a darkroom.

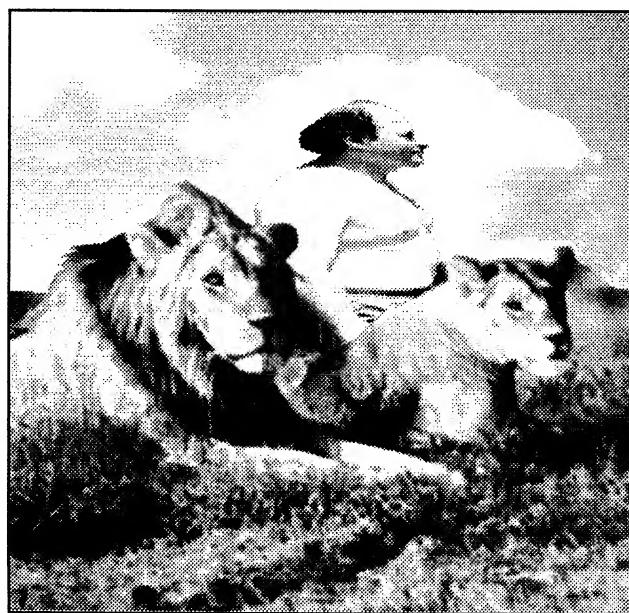


**Figure 3.** The transformation of Jesse Barkin into "Bubba Barkin." The grid is shown before and after I modified it. This image was then further modified to demonstrate Bubba's courage by placing him next to some lions.

Let's do an easy one. In figure 2a, we have a relatively well preserved, but extremely faded, image from 1928. This is a photo of my mother at the age of 18 (on the right) and two friends. I wanted to darken the image. Using the block function, I copied the image to a new frame, but using the block controls, I specified that I wanted the copy to be 70 percent. I then overlaid the original image onto my 70 percent copy and the photo was restored. I then made a slight adjustment to the contrast. Finally, I masked the faces of the three friends, inverted the mask and sharpened *just the faces, using a very low power*. That's it, figure 2b. This took five minutes. Special effects take place on the image. But the above actions took place by copying the image and then adding or subtracting to the new image. The results can be impressive.

### The Grid

In figure 3 I'm going to demonstrate another effect of *Retouche*. This block function has a lot of possibilities. One of the more extreme is the grid. The copies used by the block function can be rotated in one degree steps or twisted. You can make people narrow or wide with the grid. Well, the grid is a frame consisting of either 9 or 16 control points. These points can be individually moved and when your image is copied onto the grid, the image follows these new patterns. Thus, in figure 3a my brother, a social worker in Louisville Kentucky, is converted into figure 3b, "Bubba Barkin." While I stretched *all* the control



points, I mainly expanded the center six points, only stretching the top and bottom points enough to avoid making the figure look impossible. I would also like to say that my poor manipulated brother *does not follow computers* and while I send him most of my articles, from time to time, some of them get lost in the mail.

As an aside, I should mention that *Retouche* saves its files as .TIH files. This is a modified .TIF file, which loads and saves much faster than regular .TIF files. *Retouche* can also import and export compressed or uncompressed .TIF files. When doing a long work session, the advantage of these .TIH files becomes obvious. When bringing files to a service bureau, the files should be saved in the .TIF format.

### Masking

At this point, it's time to discuss the masking features of *Retouche*. This feature represents a considerable part of the program's power. Masks are used to cover portions of the image. These are literally masks. They are in no way part of the image. So if I cover a person's head with a mask, the face is still there, under the mask, and is completely unaffected by the mask. In figure 2, I masked the faces of the three friends, inverted the mask, so that *only* the faces were unmasked, and sharpened the image. In this case *only* the faces were affected by the sharpening effect. The mask acts to protect those portions of the image that are masked. I can save these masks as .IMG files. Thus, when I work on a photo, which will be used over and over again, I save the mask with the TIF file.

At any rate, this is one use of the mask function. Another is in the creation of photographic collage. Using the photo of Bubba Barkin, I mask the background. In another window, I have my favorite lions. I can now use the copy function to insert Bubba into the photo of the lions, *without the white background covering part of the image*. I can take this one step further and mask part of the lions and insert Bubba *behind* the lions. After creating a collage, I use the various anti-aliasing tools to smooth out whatever discrepancies there are in the new photo. The result is seen in figure 3d.

At this point, one might ask, "Just how is this wise guy creating these masks?" The masking tool is just a cross hair. In TT medium resolution, it produces a red overlay; in ST High, the mask is black. This means you will often have to reduce the contrast in order to see the mask. You can only choose between different sizes for the resulting mask: one pixel, 4 pixels, 12, 24, 48, 81. You can draw freehand, draw using straight lines, or you can use four point bezier curves. It's also possible to use the vector part of *Retouche* to enclose an entire area and then the mask will appear following the vector curve. Once an area is surrounded by the outline of a mask, there is a fill option. If there is enough difference between the part of

the image that you wish to mask and the background, *Retouche* has the ability to measure this difference and *automatically* mask the colors that you define. Very, very handy. But even going over a 1.4 meg file piece by piece takes very little time. Remember, you are *not* affecting the underlying image. Mistakes cause no damage. You can save the mask at various points in its creation for different functions. The whole process can be considered as work, but relatively easy. If it's hard to tell where your image and background separate, you can use the various contrast tools to heighten the difference and, after the mask is created, restore the original contrast.

Another interesting aspect of masks is the ability to add masks to other masks. You can set and control various parameters so that masks will replace or join existing masks in various ways. When a collage becomes complicated enough, this automates the construction of them. Once a photo is masked, you don't have to laboriously recreate a new mask for the collage, just add on the old one. You can create unlimited collages, especially if you're clever and save files of everything.

Figure 4 is an example of a collage used in a City Council race in New York. This collage consists of 16 separate photos. In photo restoration, where an image is "washed" out, you can mask this washed out area, invert the mask and then copy the entire file to a new window, specifying, let us say, 50 percent. You can then turn off the mask, and add the entire image to your 50 percent image. The washed out area will now have the same level of color as the undamaged portion of your photo. This process is rarely that simple. There are degrees of damage, but you get the idea. Anything is possible.

### The Mechanics of Color

Hopefully, everyone is enjoying this article, but no description of how a handful of photos are manipulated is going to provide the key to understanding the principals of photo-manipulation. Let's take the operations of figure 2. Much of what I accomplished in this example could have been accomplished simply by making the scan darker. The faded photo contained colors of very low levels of gray. If the setting on the scanner had been set to compensate for this, I could have achieved much the same result. Superficially, figure 1 looks much the same, but such is not the case. The marching figures of the demonstrators were a mass of very similar levels of gray, similar *but* not identical. Moreover, these figures were over 50 percent gray. Just using *Retouche*, to simply add copies of the photo together, would have resulted in much of the photo becoming 100 percent black. The same problem would have occurred if I had scanned the photo in at a darker setting. This is not a good solution.



**Figure 4.** This collage includes 16 separate photos. In this collage the scans vary from as little as 75 to 150 dpi. The resulting file was 3.7 megabytes. But for this article, I cheated. To save disk space, I used *Retouche* to scale the picture to half size, resulting in a one meg file. This was imported to *Calamus SL*, rasterized for a lazar printer, and exported as an IMG file. In other words the image has an effective resolution of 35 to 75 dpi. TIF files are something else.

Instead, by using the contrast controls of *Retouche*, we are separating levels of gray, which had very close gray values. By doing this, our figures become distinct. If I had worked with a darker image it would be impossible to separate 100 percent from 100 percent. I've tried to get around this by writing to president Clinton urging him to repeal some of the laws of reality, but as of yet, this has proved futile.

In other words, we need tools to manipulate these levels of color, and photo-manipulation programs provide these tools. The expertise comes from an understanding of the elements that we are working with. In the above examples, we are separating the very close levels of gray by changing the contrast of neighboring pixels. The other main operation involves changing the contrast between *groups of pixels*, the sharpening tools. *Retouche* provides an incredible degree of control over these kinds of changes. The primary operations involved in figure 2 are those of redefining the levels of gray and the way these levels mix.

Figure 2 is aimed at the laser printer for final output. If you notice, many of the trees in the background appear black or near black. If I had been doing this restoration for a client, who wanted perfection, and the final result would be a photographic negative, then the process would have been different.

I would have used the masking tool to cover and protect the higher levels of gray. My copies would have involved small changes of five percent increases. I would then remask the higher levels of gray. I would do this because some of the lower levels would have risen in value to the point where copying them would cause the picture to become black. This whole procedure is aimed at avoiding the creation of distinct bands of color. Everything has to merge, as, in fact, a quality photo merges. *Retouche* offers additional tools, that I haven't even discussed, to aid in this.

It is by understanding these manipulations that we can do more than just act on a trial and error basis. A backhanded complaint against *Retouche* is that the program is so easy and powerful, that it's possible to do serious work just punching the keyboard. In the Atari world, we are used to working with monochrome files. The bolding feature of a program like *Tbuch-Up*, simply increases the size of the existing black dots. This has no relation to true photo manipulation. As I've said, here we are working not with dots, but with levels of color. The size of the pixels **does not change!** Only the **level** of color changes. I'm not writing this to tell people what cannot be done. If the digital data is in the photo, this program can bring it out.

### Unlimited Possibilities

There are unlimited possibilities for using this program. I haven't even gone into using the graduated fill options, which create and alter shadows, or change the lighting effects of photos. There are numerous other effects including contouring, roughening, and adding structure. Adding structure, depending on how you set the parameters, can turn your photos into paintings. Hey, all this stuff is so exciting, and opens up such powerful potentials, I can barely bring myself to stop writing. *Retouche* comes with a number of accessories. One allows the adding of text to your files. Another allows exporting as Postscript files. One accessory allows for the creation of pre-screening for final output. Owners of *Calamus SL* or *Didot* can do this final screening from within their programs. There are a number of other accessory programs.

Next month's article is up in the air, depending on developments, but will probably deal with combining the output of *Calamus SL* and *Retouche* and lugging your stuff down to the service bureau. Until then.

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## Atari in the STicks

Henry K. van Eyken

*Human reason is like a drunken man on horseback; set it up on one side and it tumbles over on the other.*

— Martin Luther

*Change* is the most predictable constant in our future. Thus it should be the first responsibility of educators to prepare young people for coping with change throughout their lives. Some aspects of current change can be readily identified and these present us with tangible tests for evaluating today's school curricula:

\* The explosive expansion and globalization of the industrial world and the ensuing redistribution of incomes around the world. The wellbeing of nations derives from how able their citizens are.

\* The urgency of rapid decision-making in the face of fierce competition and, let's emphasize this, of a potential environmental holocaust.

\* Intercultural conflicts,<sup>1</sup> the continual questioning of traditions, the lure of novel (and even abhorrent) value systems, and our underlying psychology. Education must not ignore whence we, humankind, came and who we are; it must foster the power of reflection on these matters. A commonality of tradition binds, shapes mutual concern, and gives value to communal being. Globalization is not only industrial, it also includes economic, political, and ecological migrations; hence, globalization does not mesh well with isolationism or clannishness.

\* Bound up with the above is the need for a widespread, healthy grasp of public affairs.

A compelling image of a future characterized by an accelerating change propelled by environmental threat was painted a few years back by William D. Ruckelshaus, twice a member of the U.S. Environmental Protection Agency and then a member of the World Commission on Environment and Development:<sup>2</sup>

"A canoeist shooting the rapids: survival depends on continually responding to information by correct

<sup>1</sup>Culture clashes between peoples from different nationalities, from different religious traditions, and from different levels of society with the attendant differences in relationships with, and attitudes toward society.

<sup>2</sup>William D. Ruckelshaus, "Towards Sustainable Development," *Scientific American*, September 1989.

# Changing Minds

steering," is the way he put it. "Taking control of the future . . . means tightening the connection between science and policy. We need to understand where the rocks are in time to steer around them."

Science and policy and the connection between them are not ordinarily perceived as matters that concern ordinary folk. The proper exercise of democracy is an interactive and contemplative process; it is, perforce, slow. Thus, in our democracies, even with a free press, opinions are not (cannot) usually be formed by everyone's personal, critical reflection and, hence, the power of the vote does not reflect the power of objective reason. Formal education doesn't help much—and may not ever be capable of doing so. But this keeps us on a slippery slope: those who influence public opinion do not necessarily make the public welfare their prime objective.

However, the need to understand where the rocks are in our approaches to the environment has factored prominently in the choice and/or electoral billing of a U.S. Vice-President thoroughly conscious of environmental matters. That, at least, signifies environmental concern is spreading toward the right places.

\*

On the business end of things, one advocate at President Clinton's court is Harvard political economist Robert B. Reich. Professor Reich wrote *The Work of Nations* in which he spelled out and substantiated a far-reaching insight.<sup>3</sup> Hardly an altogether novel insight, to be sure, but one whose potential consequences haven't yet permeated everyday thinking. The insight is that the old, grey corporations ain't what they used to be and, concomitantly, that the world's economic power structures are shifting and the disparities between segments of society are increasing.

Fewer and fewer corporations are primarily national institutions although many people still think they are and that, as such, they contribute to the national wealth. This vestigial thinking clings to us like mud, even though we can plainly see that the ownership of public enterprises is increasingly global, that their organizational webs stretch around the world, and that the locals of their specialized activities

<sup>3</sup>Robert B. Reich, *The Work of Nations*. Vintage Books, 1991.

(planning, design, production, marketing) are selected on economic merit, without regard for national boundaries.

"We are living through a transformation that will rearrange the politics and economics of the coming century," writes Reich. "There will be no national products or technologies, no national corporations, no national industries. There will no longer be national economies, at least as we have come to understand that concept. All that will remain rooted within national borders are the people who comprise a nation. Each nation's primary assets will be its citizens' skills and insights" and not what material goods they possess.

These are the skills and insights of those who identify and solve problems, and of those who broker their profitable engagement. Reich refers to the people who possess these skills as symbolic-analysts. Corporations seek to engage these people for their high-value contributions. As to labor directly employed in high-volume manufacturing operations, they search the world for the cheapest available until robots can take over. And that's why the rich get richer and the poor get poorer.

At midcentury, "American schools mirrored the national economy, with a standard assembly-line curriculum divided neatly into subjects, taught in predictable units of time, arranged sequentially by grade, and controlled by standardized tests intended to weed out defective units and return them for reworking."

While the education of most American children is now sadly lagging that offered elsewhere, "some American children—no more than 15 to 20 percent—are being perfectly prepared for a lifetime of symbolic-analytic work . . . . These fortunate children learn [in their homes and in their schools] how to conceptualize problems and solutions. The formal education of an incipient symbolic analyst thus entails refining four basic skills: *abstraction, systems thinking, experimentation, and collaboration.*" Systems thinking deals with reality as a system of causes and consequences instead of a sequence of static snapshots that most people feel comfortable with.

"The symbolic analyst wields equations, formulae, analogies, models, constructs, categories, and metaphors in order to create possibilities for reinterpreting, and then rearranging, the chaos of data that are already swirling around us. Huge globs of disorganized information can thus be integrated and assimilated to reveal new solutions, problems, and choices. Every innovative scientist, lawyer, engineer, designer, management consultant, screenwriter, or advertiser is continuously searching for new ways to represent reality which will be more compelling or revealing than the old."

"For most children in the United States and around the world, formal education entails just the

opposite kind of learning . . . . Reality has already been simplified: the obedient student has only to commit it to memory . . . . Rather than construct meanings for themselves, meanings are imposed upon them . . . . The underlying lesson is that it is someone else's responsibility to interpret and give meaning to the swirl of data, events, and sensations that surround us. This lesson can only retard students' ability to thrive in a world brimming with possibilities for discovery."

And, we might add, brimming with threats that urgently need to be identified (by an electorate, one should think) and disarmed. Disfranchise is an explosive device within the body public. Whether such disfranchise is intellectual or spiritual or economic, any one triggers the others.

\*

Montreal's Dawson College is one of those inner-city schools whose population of future problem solvers and identifiers and brokers appears to be quite small. The college claims to offer a leg up to more than 6000 students many or most of whom are otherwise considered unsuited for post-secondary studies. After having observed the process for a quarter of a century, I cannot but question the legitimacy of what goes under this noble mandate.<sup>4</sup> Being a teacher in this kind of environment can be an agonizing experience at times:

#### How to Solve It

In the corner of her eye

mascara began to run  
under torture of my teaching.

"I understand the problem, but not the way you do it,"  
she said.

"Look, Sir, I did it! Same as in the book!"  
she said and showed me,  
in yellow Hi-Lites,  
the writer's rote routine.

How oft I wished I'd done a "problem"  
the way it's done  
in the book.

To have had my lessons sanctioned  
by the Power  
vested in the printed Word.  
And had left unsullied the peace  
within a class fed fare  
barely a Fleabytic fit.

Ah, Polly!

<sup>4</sup>This is less an indictment of Dawson College as it is of society's too anemic a concern with education.

A good climate in the classroom is vital for comfortable learning and one way of providing this is by avoiding abstractions and by doing on the blackboard lots and lots of exercises. The lesser qualified love this approach. Naturally, they expect that their exams will be composed of the same type of questions whose solutions now appear in the notes of those who bother to take them. That is only fair, they feel. Challenge is tiresome and students can do without too many unpleasant surprises in their already unsettled lives.

But "when convenience is valued over quality in education," writes that pioneer of truly personal computing, Alan Kay, "we are led directly to 'junk' learning. This is quite analogous to other junk phenomena, pale substitutions, masquerading for the real thing. Junk learning leads to junk living."<sup>5</sup>

My (typical) student was not accustomed to—had not been prepared for—even the slightest of intellectual challenges. Accordingly, the prescribed course text was a "How-to" manual more than a proper textbook. Such texts reinforce students' tendencies to bypass the tedium of learning definitions, concepts, and principles that underlie problem-solving and are needed to devise novel problem-solving strategies. As is all too common, the text was written to inform more than to educate; to help students through a next exam without preparing them for further mental development. Have no doubt that many students are quite grateful for this smallest of mercies.

The book had given my student a sense of security ("Look, Sir, I did it!") and her mascara began to run when she recognized that her sense of security had betrayed her. She already had crossed too many bridges—by learning how to get across each next bridge without having accommodated needed concepts and principles. By now she was thoroughly confused and frustrated. But you know ol' man river time. He keeps on rollin' along . . . .

If the perversion perpetrated on this student is not enough, a simple repeating of the course, as is often too soothingly advocated, is nothing more than just that. Repeating does not remedy the root problem. It only reinforces a sense of inadequacy, the belief that she or he is inherently incapable of learning. It erodes selfworth. Might we not consider robbing people of their confidence and self-esteem a crime?

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<sup>5</sup>Alan C. Kay, "Computers, Networks and Education." *Scientific American*, Sept. 1991, p.138. My quote is not the central theme of Kay's article, but he is bang on and said it well. Kay and colleagues studied, at a rather privileged elementary school, the strengths and weaknesses of computers as "amplifiers for learning" and how children can be helped to engage in systems thinking. From the insights gained he drew up a list of half a dozen potential benefits. Please, consider it recommended reading.



*Constructivism* is a modern theory of knowledge. Its central tenet is that knowledge is constructed by the learner upon preexisting mental structures. We know what we think we know by constructing our own world and testing whether it is in keeping with further experiences. The teachers' role would be to assess what building materials are required at any step and then supply them. If the student finds he can't assimilate the pieces into his mode of thinking, he seeks, or should seek, to accommodate them by a change of mind. Accommodation may entail resistance and struggle and, hence, may require attention and patience and strategies for prodding things along a little.<sup>6</sup>

Most people, especially adults, it seems to me, are not readily coaxed into an accommodative frame of mind. Theirs are made up; they have constructed their reality and are not about to change it, especially if that personal reality has led to personal success. They are praised as the staunch, dependable types. Detractors may call them pigheaded.

Man's mind is the center of his Universe. The subject of how we acquire our notions is so important, one should think, for it to be taught in school. And so think the American Association for the Advancement of Science. Here is how they outline the tenets of constructivism for incorporation in the school curriculum:<sup>7</sup>

"People's ideas can affect learning by changing how they interpret new perceptions and ideas: People are inclined to respond to, or seek information that supports the ideas they already have and on the other hand to overlook or ignore information that is inconsistent with the ideas. If the conflicting information is not overlooked and ignored, it may provoke a reorganization of thinking that makes sense of the new information, as well as of all previous information. Successive reorganizations of one part or another of people's ideas usually result from being confronted by new information or circumstances. Such reorganization is essential to the process of human maturation and can [!] continue throughout life."



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<sup>6</sup>I must remind the reader that I am a generalist, not a specialist. Furthermore, my treatment of cognitivism is quite summary, bordering on the flippant perhaps. At first writing I thought this treatment would do, but on reflection I sense that in a process of attempting the twinning of Man and machine cognitivism may not stand to be ignored. Time will tell.

<sup>7</sup>*Science For All Americans: A Project 2061 Report on Literacy Goals in Science, Mathematics, and Technology*. American Association for the Advancement of Science, 1989.

Contemplate the word *problem* and compare it with *exercise* as it appears in typical school and college textbooks. Central to *problem* is a derivative from the ancient Greek word *ballo*, throw. Solving a problem entails a mental throw through a darkness without any sense of where our thoughts will land. *Exercise* is more sure-footed. An exercise is a drill, pure and simple. It reinforces. Repeated exercises make for faster locating the pathways that lead to answers. Although such exercises are also often called *problems*, there is that distinction about which we must be clear. Computers can be programmed to follow rules, to solve problems at the level of exercises for students.<sup>8</sup>

A student may, upon reflection, well understand the principles undergirding an exercise, but exercises are mostly done rote, unwittingly (*seven times eight equals fifty-six*, say). And, as is often, or usually, the case, students are tested merely for correct answers (often replete with some scribbled documentation of memorized steps) instead of for an understanding of the subject matter. They try to respond, in fact, as if they are computers. What they write in their exam booklets follows memorized scripts, algorithms. But if correct summary responses, which appear to rapidly lose their value in the market place, are really all examiners require then students might as well take programmed computers into the exam room instead of mere electronic calculators that are now routinely allowed in.

\*

Like Luther's drunken man, we are about to tumble off the other side of our horse, aren't we? There is that urgent need for educating for change. There is a need for reviewing the curriculum in the light of what is happening in this world. And there is that recognition that computers will have an important, if not vital, role to play in assisting minds; that, in effect, computers may well become—need to become—companions carried on the person. However, there is also that deplorable reality that most young people become almost irretrievably stuck along that long lane of learning.

In the past, the world of work was in a good position to accommodate those who did not fare too well in school. As Reich sees it, indeed, as many young people themselves see it, that time is past. Thus, there is an urgent need for improving education, a process in which home environments play a vital role. And we must learn not to mislead students with passing grades when they are not ready for academic ad-

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<sup>8</sup>Etymology is not a proper basis for clarifying a topic in educational psychology, of course, but it serves the purpose. Note that, roughly speaking, exercises compare to problems as assimilation does to accommodation.

vancement, a practice I suspect to be the rule more than the exception.

I am fascinated by what machines may do for future minds. But I also realize that today's priority is an emphasis on what humans can do for future minds. Parents, teachers, society at large; together we have much to straighten out.

Does this mean that we should forget for now about the twinning of Man and microchip? Of course not. Why not try to be ready when the kids are ready? In fact, by Reich's data 15 to 20 percent of American (and, presumably, Canadian) students do get an excellent upbringing and education, and they should be ready. A competitive world is not about to wait.<sup>9</sup>

\*

The advantage of knowing principles over and above just applying algorithms, as I see it (and educational psychology has at least to an extent established), is that it provides a mental store of clues about where one might most profitably throw one's thoughts when running into a real problem. In this sense, understanding specifics augments our capacity for problem solving in general. Thus, inculcating understanding is an essential component of education. Nevertheless, exercises whose underlying mechanisms are not understood by the one exercising also have their value, but only in those instances where rote routines suffice, such as in ordinary arithmetic and formulaic routines—and for passing a final examination without ambitions for making ensuing academic progress.

Tersely put, *understanding widens scope; rote fosters speed*. The modern mind must be prepared to engage many unknowns and make short thrift of the familiar. There is a place for both. It is a task then for educators to assist the young in optimizing such minds. Hence, curriculum design and, from there, instruction and textbooks should take into account the when, where, why, and how of striking a balance between understanding and rote.

\*

Economists have a term for it: *opportunity cost*. Opportunity cost is what else you might have purchased for your dollar had it not been spent on ice cream. I wish that the term *opportunity cost* were

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<sup>9</sup>But let not competition blind us to the need for a well-developed spiritual make-up. See, e.g., Allan Bloom, *The Closing of the American Mind: How Higher Education has Failed Democracy and Impoverished the Souls of Today's Students*, Simon and Schuster, 1987. And Benjamin R. Barber, *An Aristocracy of Everyone: The Politics of Education and the Future of America*, Ballantine Books, 1992.

commonplace in education. Could the time for learning how to swaffle be put to better use by studying frigmatics? And closer to computists' hearts, what is likely to profit a student—and, hence, society—more in later life: a grounding in computer algorithmics or details of some of our contemporary application software such as *WordPerfect* or *Lotus 1-2-3*?

Limits on the years for formal education demand that thought be given to what—and to what extent—pupils and students should understand things and what they should simply be able to do. Time badly spent carries a high opportunity cost. The long-term value of any subject matter and, inherent in this, the capability of computers to take on vast amounts of rote work ought to be taken into account when designing a curriculum.<sup>10</sup>

Elsewhere, I have expressed the hope that future students will all get to enjoy a disciplined social (democratic, liberal?) education that embraces both of Snow's *Solitudes*, i.e. the domains of the arts and of the sciences.<sup>11</sup> That they will familiarize themselves fairly broadly with many categories of knowledge and their relevancies and that they will learn to explore, with and without computers, categories in the common, extracranial domain of knowledge for details either forgotten by them or not in the curriculum, and that they apply to solving problems those facts, those concepts and principles they judge to be usefully applicable. Thus, many topics revered today as fundamental—or merely important—may, chiefly at middle and higher levels of education, rust away as young minds are guided to embrace matter more vital to living a useful, as well as an examined, life.

I want to take another step. The complexing of a democratic society requires more analytical thought on the part not only of experts, but of all citizens who participate by the power of their votes. We seem to have entered the Age of Referendums in which ordinary citizens are asked to answer yes or no to complex proposals, be these the Maastricht Treaty or a revised Canadian constitution—or the election of a country's President and Representatives. Typically, a citizen feels powerless to assemble, grasp and balance the facts, and unless he is able to shrug things off (*be irresponsible* is a label found in another compartment of our vernacular) he ends up utterly bewildered as I have heard so many admit. Educators must put more emphasis on forming good judgement.



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<sup>10</sup>I am overlooking here stages of mental development in children and, accordingly, different modes of teaching within age brackets.

<sup>11</sup>Henry K. van Eyken, "Fleabyte Fundamentals: Promoting More Meaningful Learning," *Journal of College Science Teaching*, Nov. 1989, p.70., different modes of teaching within age brackets.

Books provide information, as do videos and computers. But computers can be made to think also. No, not the way *we* think. Not as an intelligence that artificially mimics ours. Their thinking lacks that human quality that comes from the interaction of three distinct layers of brain plus their nervous extensions as they act out the human mind. But other aspects of electronic thought are far superior to ours: *speed, certitude*. In that sense, we are well served if their thinking is made to complement ours, to provide strength where we are weak. We should thrive for the twinning of Man and microchip to create team intelligence under the control of our human affect, our human sense of values. Therefore, educators must become more comfortable with computers so that—eventually—they may educate *students together with their computers*, and in testing for educational outcomes they must examine *students together with their computers*. This has been my conviction for many years now and I have encountered no good reason for changing my mind about this. (Pigheadedness?)

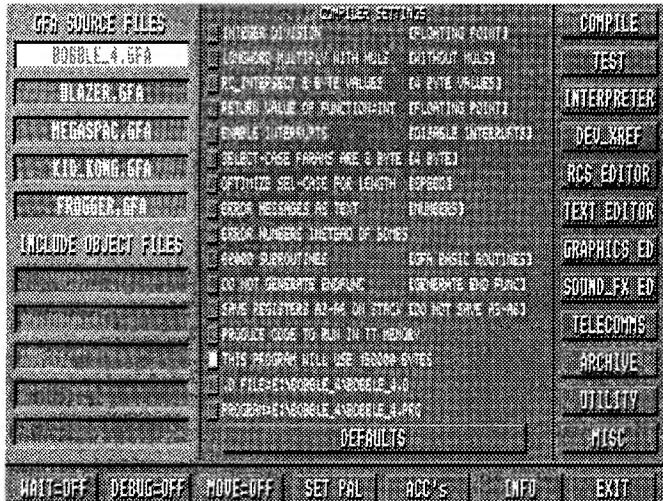
Remember the days when handheld, electronic calculators became cheap? This gave rise to arguments whether or not kids should still be drilled in their tables of addition and multiplication. (Frankly, I tend to believe they should). This might now spill over into a debate whether or not pupils should be able to do the fundamental calculations of physics and chemistry (and I think they should, but with an emphasis on those underlying principles that are novel to students). And this, then, might continue into a debate whether or not students should off-hand, by drill, recall the steps of more specialized calculations that are based on familiar principles but arranged for those specialized purposes (which I consider questionable). But never mind my own parenthetical preferences; the mere existence of efficient, electronic thought and the potential for efficient intercourse with it ought to impress upon us the need for a reevaluation of fairly detailed educational goals.

With computerized equation-solving a well established art,<sup>12</sup> it now is, or is in principle, possible to let computers do exercises of the kind commonly assigned by teachers. This will not absolve students from drills. Far from it. But curriculum designers might feel a stronger urge to apply the principle of opportunity cost in reevaluating these drills and unshackle students from those of lesser value to let them learn instead from tackling real problems.

P.S. I am going to leave this subject for a few months to play with some other facets of computing on the ST, but I want to get back to it. March looms as an opportune time. Next month: Teradesk (even though I haven't even got a hard drive).

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<sup>12</sup>See, e.g., W.H. Press, B.P. Flannery, S.A. Teukolsky, and W.T. Vetterling, *Numerical Recipes in C: The Art of Scientific Computing*. Cambridge University Press, 1991.



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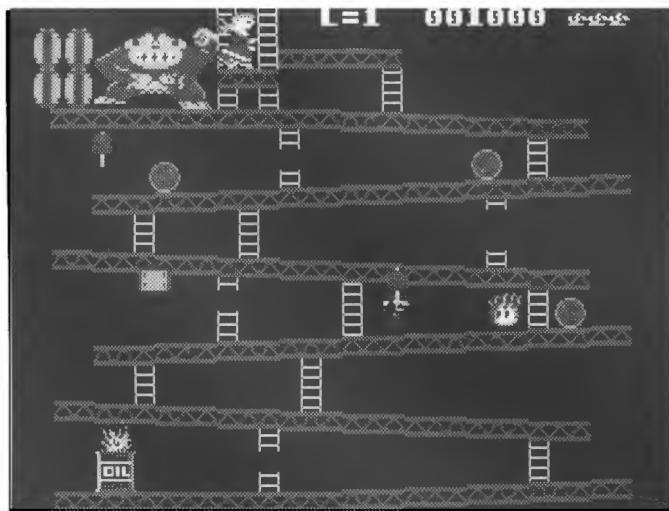
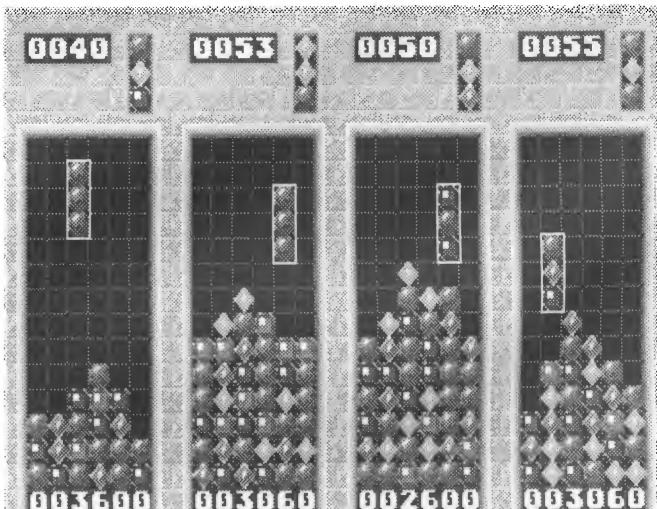
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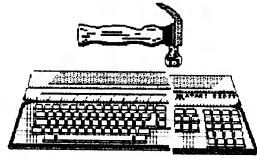
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# ST TOOLBOX



by J. Andrzej Wrotniak

## The Joys and Pitfalls of Gemulation

Version 3.0

## Gemulator Update

My "official" update of the *Gemulator* software came in the mail just three days ago. I am saying "official," because the programmer, Mr. Darek Mihocka, was kind enough to e-mail me two earlier beta versions to try out. This one (dated September 15th) is being distributed via "normal" channels to all purchasers of earlier versions, myself in this number, who were smart enough to send in their registration cards.

I reviewed *Gemulator 2.11* in the April issue of *Current Notes* and virtually all that I said there still holds (in short: the bloody thing really works!). Now let me share with you some remarks on the newest version.

### Improvements

Needless to say, I am happy with how *Gemulator 3.0* works: all the productivity programs I use in my office work just fine. The original purchase of Version 2.11 paid itself back in about one week; any new improvements are a nice bonus now.

This version adds, among others, serial port (modem) support, and sound—if you have a DOS sound card (*Ad-Lib* or *Sound Blaster* are OK, but why?). The start-up screen is somewhat improved, and there is a small, but sufficient, printed manual: all changes in the right direction.

From where I stand, however, the most important improvement is in the area of accessing the hard disk drives. *Gemulator* will now allow you to use DOS partitions (logical drives) from C: to F:, although writing will be possible only to those with size not exceeding 32 MBytes. This means that you will not be able to corrupt the disk partitions, whatever their size.

(It's a pity that only drives up to F: are supported—my setup goes up to I:, a 210 MByte drive divided into seven partitions. Well, even as a child I was different from the other kids.)

You can, of course, use the alternative solution and install a number of *TOS virtual drives*. From the DOS side they look just like files, and the information inside cannot be accessed, but once you are in TOS, they walk, talk and quack like "regular" disk partitions. This way your DOS C: drive can hold virtual partitions, which the Gemulated ST will see as C:, D:, E: and F:.

Most of the Gemulator users use the second, "virtual," approach. The reason is simple. Most PC clones come from the vendor with the hard drive formatted as one C: partition and we are too lazy to back up all the files, repara-

tition the disk into logical drives not larger than 32 MBytes each, and copy the files back.

This is understandable: laziness and inertia are perfectly normal human traits—they are also the reason why 90% of people use computers with an operating system which was obsolete ten years ago (spiffed up with colorful windows and moronic screen savers, but essentially still the same). If issues in science and technology were decided by popular vote, we would still be believing in a flat Earth circled by the Sun.

### Repartitioning: Worth the Trouble

If you are planning to use the *Gemulator* as more than a conversation item, especially if you are sharing your computer's time between the Atari ST and PC-DOS modes, the initial investment of repartitioning your drive is, I firmly believe, well worth the trouble.

**Reason One:** you can share the same files between both systems. A data, image or text file generated under DOS can be used by an ST program without a cumbersome procedure required otherwise (copy from a DOS partition to a floppy, and then, when in the TOS mode, copy from that floppy into a virtual TOS partition). The same goes, of course, in the opposite direction.

**Reason Two:** adhering to the KISS principle (Keep It Simple, Stupid!). The virtual drive emulation is one more layer between the emulated system (ST) and the emulating one (PC). It slows things down, and more things can go wrong (and, if something can go wrong, one day, it will, and then you will regret not following my advice!).

**Reason Three:** even without leaving the DOS environment, a number of small partitions is preferable to one large drive. Putting aside the (slight) gain in access speed, this is also safer. If your FAT (a special place on the disk keeping the directory structure) goes wrong, you may lose just one logical drive, not all of them. Also, the backups may become simpler and faster, especially if you keep the "read" files (installed software) on a different partition than the "write" files (documents, data etc.).

**An Extra Advantage:** backing up and repartitioning your drive will, obviously, take some valuable hours of your time, but will leave you with a fresh backup, which you were planning to do since last February, and you may thank me next week, when your drive dies (okay, just a thank-you note, no flowers please). It may also make sense to go through your directories and trash all the long-forgotten and unnecessary files. This can result in *lots* of free space

on the overcrowded drive. Just be sure to know what you are trashing. Some DOS programs, especially those working under *Windows* (aaaargh!), create zillions of auxiliary files—and even need some of them in order to work.

The first reason, by itself, is enough, at least for me. Transferring data between two systems (housed in the same box) via a diskette is just ridiculous.

About Reason Two: it may or may not be meaningful that all the problems some of my friends have experienced with hard drive access from *Gemulator* were reported on installations with virtual drives. I have been using it extensively since January, sharing the drives (originally only C: and D: were enabled) between PC-DOS and ST-TOS, and without a glitch!

This is also why, in DOS, I am not using the *Slacker* or *DoubleSpace* or whatever compression utilities (and reading some of those boring PC magazines makes me suspect I'm right—again).

### The Reasons to Get It

Contrary to what is sometimes said (especially in the promotional literature), *Gemulator* is not a complete replacement for a "real" ST or STE, and even less for a *Falcon*. Some programs (including games, but not only) simply cannot be run on it, as they access the ST hardware directly.

On the other hand, a great majority of the productivity software runs with no problems, including some ST programs doing a better job than their PC equivalents (and there are still many such cases!). If you need to use some of your ST software at work, where you have just a PC clone, or if you have decided to leave the ST platform for the PC-DOS one (a step you will not once regret: why not a Mac at least! Just for the lousy pirated software from the office?), then spending the \$230 to get *Gemulator* is a very good idea.

There are also some additional advantages. The same SVGA monitor will run not only in the ST mono and color modes, but also (with use of the enclosed screen driver, an \AUTO\ program) in higher resolutions: 640\*480 and 800\*600 pixels, mono and color. The extra monochrome modes are quite respectable in speed and I found myself using the 480-pixel screen height (mono) most of the time. The extra 20% makes a *very* visible difference. (Unfortunately, some of the older programs know only how to use the "regular" ST resolutions.)

Without a TT or a *Falcon* (I am going to get one as soon as I'm in the black again!) only with the *Gemulator* I was able to make my own programs behave nicely under various resolutions and with various numbers of color planes. I hope Mr. Mihocka has plans for other nice screen drivers—I like this one very much!

Moreover, every time you move up to a faster PC (which benefits mostly the manufacturers), the *Gemulator* will also run proportionally faster. I have not noticed any significant speedup in Version 3.0 as compared to 2.11, but,

on a 50MHz 486DX2 machine, most of my applications run 1.25 times faster than my 8MHz ST. (Disregard the "mean" values from the otherwise quite nice *GemBench* benchmarking program—the averaging arithmetics is quite wrong there, and if you drop me a note, I may one day explain why.) Anyway, the day you get a 100MHz Pentium machine, your old ST will scream.

(And yes, according to the developers, the new *Geneva* multitasking environment from Gribnif Software works well with the *Gemulator*, as it does with the "normal" STs. This means more power, new feel and look, and still the use of all your old software; almost too good to be true. I still have to put my hands on this baby, but from what the others say, it is hot!)

The documentation accompanying *Gemulator 3.0* also reveals plans for a *Macintosh* emulation in the near future (this, of course, will require the original Apple ROMs to be plugged into the board). The only reasons that *Gemulator* will not run the *Spectre* software are, I suspect, of mostly legal nature. An independent emulator will not be limited from this angle, so quite soon we may expect new developments on this front. Very, very interesting.

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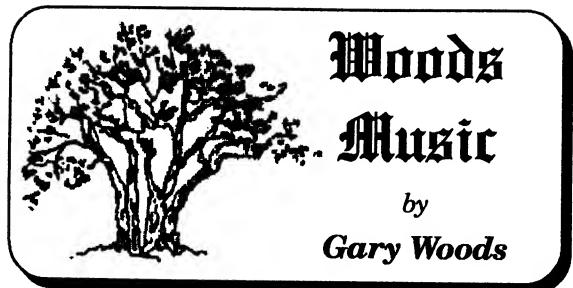
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Technical Support lines in the computer industry are one of the primary ways that users communicate with a company. It can be a frustrating or rewarding experience, depending on the individual answering the questions. In my younger days before I was the awesome technical guru you have all come to know, I used to spend a fair amount of time talking to Tech Support people. Sometimes, while I was waiting on hold, I would think about interviewing one of them and seeing if they had some insight into the best ways of getting our questions answered. I had the good fortune to meet one such Technical Supporter about a year ago, and finally had the opportunity to do that interview. He is Bill Black, of Steinberg-Jones, who handles support for *Cubase*, among other products.

**Gary:** *I understand you received an award for Technical Support at the most recent Frankfurt Messe in Germany.*

**Bill:** Yes, I won an award from Steinberg-Germany, for Best Technical Support for *Cubase*.

**Gary:** *Where is that award?*

**Bill:** It's on my desk, and I remind the staff here everyday that I am the best. (Laughter)

**Gary:** *What's your background before getting into technical support?*

**Bill:** Before I worked for Steinberg, I worked for West L.A Music for about a year and a half in retail sales. I started out just selling keyboards, but then I began putting together enormous MIDI studios for music writers and producers.

**Gary:** *How did you acquire your knowledge of Cubase?*

**Bill:** I learned it by reading the manual. I've read it probably seven or eight times now, but it's all in there.

**Gary:** *What kinds of questions do you get about Cubase?*

**Bill:** If it was just *Cubase* by itself, solving problems would be simple, but there are all these different cables and interfaces that an individual will have in his particular setup which complicate the issue.

## *Life in Technical Support*

**An Interview with**

# ***Bill Black***

**of Steinberg-Jones**

**Gary:** *What steps should the user take before calling you?*

**Bill:** A lot of the things I do with problem solving is simply instructing somebody in the process of elimination. If it doesn't work right, something in this big chain of interfaces and cables is to blame. Since the sequencer is the heart of the studio, it is always the first one to get blamed. I think when a problem arises, someone should sit down and examine where the information starts, and follow it through to its logical end.

**Gary:** *What should the user do if he thinks he's found a bug?*

**Bill:** A bug is defined by the fact that it is duplicatable. If it happens one time and is not repeatable, it is not a bug. If it can't be duplicated, it is probably something related to an individual system. A problem has to be duplicated every single time in order for a programmer to solve it.

**Gary:** *Do you have any suggestions for ways of testing out a problem to make sure it's the program's fault?*

**Bill:** Again, it follows a logical pattern. Let's take, for example, something as simple as you play a note and no sound comes out. Well, that note starts at the keyboard, goes down a MIDI cable to an interface, into the computer, out of the computer, back out the interface, back to the keyboard, or to a sound module, which generates a tone that comes out an audio cable, which goes to a mixer, and so forth. Literally, you start where the note starts and figure out where the problem exists.

**Gary:** *Would it be helpful for you to have the user write the questions down before they call?*

**Bill:** Absolutely. Some people jot questions down as they work and then call me with a list of five or six. They may not even be problems, but inquiries about better ways of doing a particular task. By writing the questions down when they call, we can just fire through them, and I can generally come up with solutions or work-arounds quickly. Also, I get FAXes from all over the world, with questions regarding techniques and malfunctions. That's a great way to communicate, because then you have a permanent record of my advice, opinions, or solutions.

**Gary:** *What's the best time to call?*

**Bill:** We're always striving to improve things, and our customers told us they found the phone line engaged quite often. So, recently we installed additional technical lines. Generally, the most quiet time is closer to the end of the afternoon, say between the hours of 3 and 5. The most busy time is generally between 9 and 12.

**Gary:** *Do you ever keep a record or log of calls?*

**Bill:** I keep extensive technical notes, so that when something unusual arises, I can apply it again. Often a caller will come up with a problem and my memory will be jogged back to something that occurred, say, two years ago. Then I can look it up and come up with a solution quickly. My notes are nothing anybody would want to read or go through, but I have a huge stack.

**Gary:** *What are some of the problems you've encountered?*

**Bill:** Often times I hear about things that are not problems per se, in the sense that the program or the MIDI keyboards malfunction. But, since there are so many options in MIDI, anomalies can arise. An example of this is After Touch. I've had several calls where people were receiving negative results relating to timing. After Touch generates a great amount of MIDI data, so that in certain situations it can cause everything else to slow down.

**Gary:** *What are the most common questions relating to synchronization with tape or video?*

**Bill:** The first is people inquiring about how to get set up in order to get the computer to synchronize with audio or video tape. There are a lot of misconceptions about SMPTE code, MIDI Time Code, MIDI Clock, and how to put it all together. In the last year or so, I sent out a paper, which addressed the most common questions asked about *Cubase* for all versions, and the most often asked question was, "How do I lock to tape?"

The second most often asked question about synchronization is synching to digital audio, and that's obviously a very sophisticated process. The manual for *Cubase* informs you that you cannot successfully do it, but the manual doesn't really tell you how to do it. So I put together a paper on this topic.



Bill showing the utmost confidence in the advice he has just given an unsuspecting user.

**Gary:** *What are some of the most common sequencer questions?*

**Bill:** People ask me how to do Program Changes, and how to Move, Copy, and Paste Parts. Also, some of the most basic editing features like Looping are frequently asked about. *Cubase* is a linear based sequencer so it's not really obvious, and definitely, I get asked everyday how to get into that MIDI Mixer.

**Gary:** *Other than the manual, what sources could the user look to for answers?*

**Bill:** There are two other publications. One of them is written by Geoff Ryles, called *The Official Cubase Handbook*; it has an addendum covering all the new aspects of the program. The second is called the *The Complete Cubase Handbook*. That one focuses on the Atari, but almost every bit of it is applicable to the other platforms.

**Gary:** *Do you get asked a lot of just basic computer questions?*

**Bill:** Yes, a lot of calls I get don't relate to *Cubase* whatsoever; they relate to the operation of the computer. I know how I was when I first got a computer, and didn't know anything about MIDI. Besides the computer, I had a brand new keyboard and a MIDI program, and all I wanted to do was to get started playing music.

There's a lot of understanding that has to go on before you can get going. You've got to learn how to deal with a computer, then your keyboard, and once you've got all that down, then you've got to deal with a specific program. It's almost overwhelming. So,

many of the questions I get are more about how to operate the computer as opposed to how to operate the program. I do my best to answer their questions unless it's a situation in which they really need to get in touch with an individual manufacturer.

**Gary:** *I know that a lot of musicians who are buying computers are essentially buying a sequencer.*

**Bill:** Yes, that's correct, and as the software becomes more complicated, the learning curve becomes steeper all the time. The new user is going to be faced with an even larger amount of knowledge to grasp before he can get down to making music. I think the greatest virtue you can have with MIDI is patience. Some days it really takes patience to figure out a problem.

**Gary:** *Since Cubase is on the PC, Mac, and Atari, are there particular problems which arise on each platform?*

**Bill:** Because each computer is unique, its interface with the keyboard is unique. The PC, for example, has a lot of cards which snap inside, and the Macintosh has dozens of interfaces on the market, so there are many choices available.

**Gary:** *Do each one of those Macintosh interfaces interact differently with the program and keyboards?*

**Bill:** Interact in the sense of capabilities, definitely. For example, if I buy a PC, I could buy a 16-channel interface, 32-channel, or a 128-channel. The same is true for the Macintosh.

**Gary:** *The program has separate drivers for each of those devices?*

**Bill:** Yes, some of them go inside the computer, and some outside. So, they interact drastically differently from each other. A 128-channel interface with 8 cords, is a lot more to handle than just a 16-channel interface. To add to that, the IBM's have sound cards, which are real quality. Sometimes the entire MIDI studio is inside of the PC, and you just see the audio cables going out the back.

**Gary:** *Who are some of the manufacturers of these cards?*

**Bill:** Turtle Beach Multi-Sound is probably one of the most popular; it has the Proteus sound library. Sound Blaster, everybody has heard of, and now they have the Sound Blaster Pro, which has some fantastic sounds on it. One of the most famous is the Roland SCC-1, which has the sounds from their famous Sound Canvas.

**Gary:** *What about for the Macintosh?*

**Bill:** Internal sound cards for the Macintosh are really not popular. There was one that was just called the MacProteus, but I guess the Mac people like their

sounds outside. There are cards for the Mac but they are generally digital audio cards.

**Gary:** *Other than Cubase, what products do you answer questions on?*

**Bill:** Quite a few. Many people don't know that I also work with Russ Jones Marketing Group and we have our own product line. Some of the products I do technical support on are the Aphex Studio Clock, the Aphex Impulse, the Niche MIDI Mixer, which is an 8 In, 8 Out audio mixer controlled by MIDI, and the MIDI Step Bass Pedals, which is a set of Bass Pedals like an organ that output MIDI to your sound module. Those are the main products I do technical support on, in addition to *Cubase*.

**Gary:** *Are there problems related to different synthesizer manufacturers?*

**Bill:** Absolutely. Anything from unique operating systems to outright bugs. Whenever you think of a bug, you think of software, but a synthesizer can have bugs as well because it's software, it's just on a chip. For example, I happen to own one particular keyboard that is no longer made that the operating system had to be changed by putting in new chips just to make it work. A sound would not come out of it because of a bug. One of the most popular modules on the market today will not respond to Bank Changes correctly. We took the heat for that until we got in touch with the manufacturer, and they said, "Well no, we didn't follow the MIDI Spec to the letter." Fortunately, that's a disk-based system so the update was easier for them to accomplish.

**Gary:** *What about popular misconceptions users have about synthesizers?*

**Bill:** A lot of people think that when you play one sound on a keyboard, then switch to another, the original sound will keep playing the first part. It doesn't occur to them that you have to set the keyboard up to accommodate this. Nowadays most synths don't put you through those set up hassles. But sometimes it's difficult to get that concept through to somebody.

**Gary:** *Are there questions you should not be called on?*

**Bill:** There are things that pertain specifically to operation of the computer. Like if someone wanted to know specifically about the operation of a PC, they should call Microsoft, or the store where they bought the computer. For example, how to copy a disk. Not because we don't want to help you, but because the best advice you can get generally is from the people who manufactured it. If you want to know how to copy a disk on Atari, ask Atari; they wrote the operating system. If you need to set up a sound in a Korg, call Korg. They'll tell you how to do it. It never hurts to

ask us, however, because if you're not certain, we can refer you to the best place to find the answer.

**Gary:** *How much input do you have with the programmers?*

**Bill:** I have a lot of input and the users also have a lot of input if they want to take advantage of it. The users come up with great ideas to include in *Cubase*. If they can get their ideas to us in a written form it goes to the programmers. The people who buy *Cubase*, are, in essence, the designers of the program. Such ideas as more Mixer Maps, Graphic Tempo Input, Patch Names, all came from users. This kind of input lets us know if a lot of people want the same thing; then it's worth implementing.

**Gary:** *Do you have to study a great deal to keep up on the updates?*

**Bill:** I do, actually. The Beta Test team and I have updates long in advance of their release, so there is quite a bit of studying and testing to make sure it's right before it's released.

**Gary:** *Do you have any user tips you'd like to relate?*

**Bill:** The first thing I tell people to do is when you're ready to record that song, go over and filter out the After Touch data, because it will clog the data stream. Also, I use the Part Inspector a great deal to set up the Play Parameters for a Part. One of the best tricks I've learned is to highlight a Part and make the Program Change there. That way when you bring the Song back that Program Change will be made. Also, make a Part first, don't ever make a Program Change without creating a Part.

**Gary:** *Where and when can people get in touch with you.*

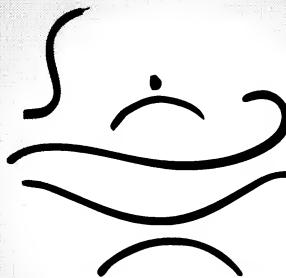
**Bill:** The Technical Support phone number for Steinberg-Jones is (818) 993-4161, and the FAX number is (818) 701-7452. The Technical Support line is operating from 9am to 5pm Pacific Time Monday through Thursday and 9am to 3pm Pacific Time on Friday.

If you have any suggestions or questions for me please contact me at: Gary Woods, 6428 Valmont St., Tujunga, CA 91042. Phone: (818) 353-7418; FAX 352-6559.

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## Foot Loose

Are you the kind of person who never backs up his hard disk? Do you live on the wild side, running your hard drive into the ground, never bothering to give it a check-up to see if it's OK? Those hard drive utility programs are just too darn complicated, and most don't work anyway. Plus, it takes forever, and you just don't have the time, right? Wrong!

*Diamond Edge* has changed everything. It's easy to use, fast, and best of all, it keeps all of your files in tip top shape. Although *Diamond Edge* will work on floppies, it's really designed for the hard drive owner. What will it do? *Diamond Edge* is complete disk diagnostics, repair, optimization, and data recovery system all in one. When used with its outstanding sister product, *Diamond Back II*, your files should be very safe.

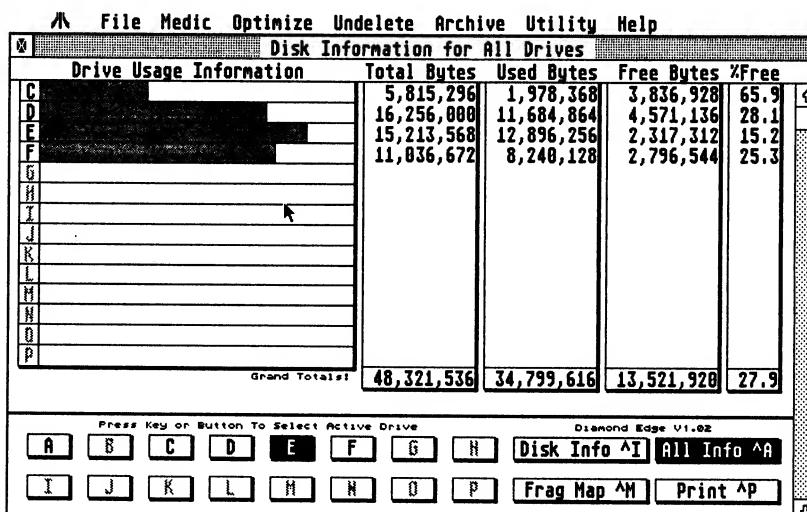
## Preventive Medicine

*Diamond Edge* is not a sector editor, but can recover damaged files and disk structure. This is where an ounce of prevention comes into play. *Diamond Mirror* is a program included with *Diamond Edge* that you put into your AUTO folder. *Diamond Mirror* saves FAT (File Allocation Tables) and directory structure of your drives at user specified intervals. You can configure *Diamond Mirror* to run once a day, once a week, or at every start up. The information *Diamond Mirror* saves is used when undeleting files. It uses the FAT and directory information to determine exactly what clusters the file occupied prior to deletion. *Diamond Edge* also has a simple undelete function. This merely calculates the number of clusters the file would have had on the disk, and then recovers them. This method can come in handy, especially if you created or added a file after the last time you ran *Diamond Mirror* and then deleted that file. In this case, your Mirror files would contain no information on the file.

Another way that *Diamond Edge* provides for data security is with the use of file validation. A reference validation file is created to compare to the contents of your files at a later date to determine if any data corruption has occurred. You can use either 32-bit Cyclical Redundancy Check (CRC) or 16-bit Checksum validation files. For those of you really in a hurry, 16-bit Checksums are notably faster than the 32-bit CRC method. After *Diamond Edge* creates your validation files, remember to regularly check that the files on your disk have not become corrupted. The validation files are especially useful after you have had major disk corruption or crash.

# Diamond Edge

## Multi-Purpose Hard Disk Drive Utility Review by James Parker



Validation files and mirrors of the FAT and directories are great if you can READ the disk. But what if something destroys the FAT, or your partition boot sector? Your files may all be fine, but you have no way to get to them. *Diamond Edge* allows you to save and restore critical disk partition structure information, including the boot sector, FAT, and directory sectors. Simply select Save Disk Info from the drop down menu, click on the drives you want to save, and seconds later, you're done. This process is not automated like *Diamond Mirror*, so it should be performed regularly to maintain a current "snapshot" of your disk. *Diamond Edge* can also save and restore your SCSI partition information. Unless you repartition your hard drive, this doesn't need to be updated.

## Keeping Your Hard Disk Healthy

*Diamond Edge* provides many ways to keep your disks healthy and error free. The Disk Medic function can be performed on either floppy or hard disks, and should be performed at least once a week. Diamond Disk Medic tests and corrects the following kinds of disk structure errors:

- ✓ Validates the boot sector
- ✓ Validates that FAT #1 equals FAT #2
- ✓ Invalid Directories
- ✓ Unreadable Directory Sectors
- ✓ Illegal File Names
- ✓ Bad Directory Entries
- ✓ Inconsistent File Size
- ✓ Bad FAT entries
- ✓ FAT Chain Collisions
- ✓ Lost Clusters

You don't have to understand all of these problems to know that *Diamond Edge* can find 'em and fix 'em. Testing all of your partitions is quick and easy. *Diamond Edge* can be configured to auto-fix the errors as it goes, or to wait until the medic scan is finished. I just set it to check all my drives and auto-fix the problems and a minute or so later my drives are all in excellent health.

*Diamond Edge* also includes several ways of mapping bad sectors. Although hard drives are becoming more reliable, they occasionally develop portions of the disk that become unusable. Part of the disk could just "wear out" or it could be physical damage to the surface of it. Either way, you want to find and mark these bad sectors as soon as possible, before you lose a lot of data. The three ways of mapping bad sectors are:

- ✓ Read-Read Non-destructive
- ✓ Read-Write-Read Non-destructive
- ✓ Write-Read DESTRUCTIVE

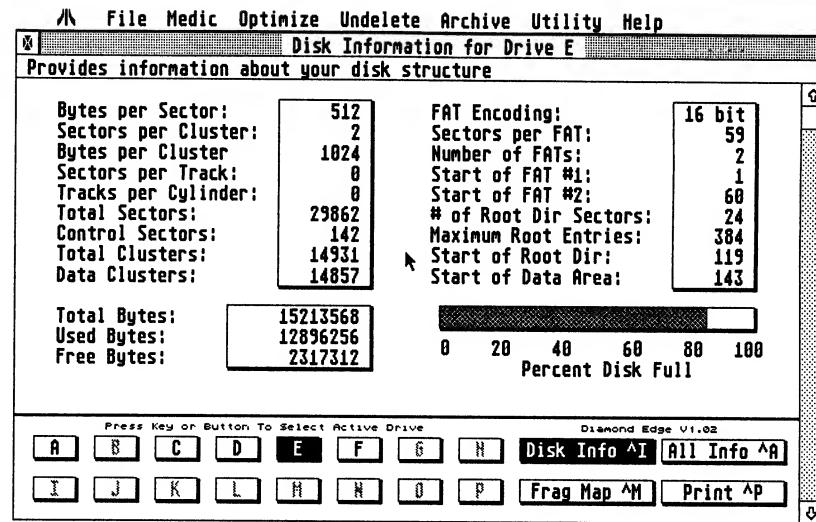
Read-Read is the least effective and least risky method because no data is ever written, and even data in marginal sectors will not be lost. Read-Write-Read is the most efficient non-destructive method, but you could lose data in a bad sector where the sector could be read correctly, but the data goes bad when written. Write-Read is the most effective way, but you will lose all your data.

The effectiveness of all the methods can be increased by performing multiple passes of your drives. You simply choose the number of passes you want performed and the method, and *Diamond Edge* churns away, checking for bad or even marginal sectors.

### Optimization

The last step to a healthy hard drive is keeping it optimized. As files are added and deleted to your drive, the files can become fragmented, with pieces of a particular file scattered all over. This causes the drive heads to have to jump all over the disk to read or write a file. This can really slow things down. The perfect drive would have all the files contiguous or in one piece. When a file was written, it would be written in one piece. Before drive optimizers, the only solution was to move all the files to another disk(s), then copy them back. *Diamond Edge* performs this task much easier, and much faster.

*Diamond Edge* offers two optimization methods: Full Optimization and Compress Free Space. Full Optimization fully defragments all of your files, and compresses all of the free space to either the beginning or end of the disk. Compress Free Space does just what it says; compresses the free space. Files are not defragmented. When you choose to optimize your



drive, you are given the option to prioritize for **READING**, or for **WRITING**. When you optimize for reading, all of your files are moved to the beginning of your partition. This improves the reading performance because all of the directory sectors and file clusters are physically closer to the FAT. Optimization for writing moves all of the files to the end of the disk. This keeps all the free space close to the FAT, and the drive heads won't have to go as far when looking for a place to write.

A cool safety feature is encountered when optimizing a partition; the partition is automatically subjected to a Disk Medic pass to search for any errors. If any errors are found, they must be fixed before the optimization is allowed to continue. You can choose to optimize only one or multiple partitions. Select multiple partitions, auto-fix errors, and full optimization and *Diamond Edge* goes to work, performing several tasks automatically. As always, there is a danger during optimization. Power surges or outages can wreak havoc on a partition that is in the process of being optimized. Always have a current back up in case something happens!

### Utilities

*Diamond Edge* also offers some excellent utilities that can help you get the most out of your disks. You can perform two kinds of partition copies, one that is an image, and one that fully optimizes it as it writes to the destination partition. The image partition copy requires both source and destination partitions to be exactly the same size and type, while the Defrag copy partition does not. You could copy a 10 meg partition to a 44 meg partition without a problem, but all existing data on the 44 meg partition will be overwritten.

*Diamond Edge* also allows you to zero a partition, un-zero a partition, and wipe a partition. Zeroing a partition erases the FAT and root directory sectors. This is much faster than deleting the files one at a time. Un-zeroing basically reverses the process. All

(Continued on page 39.)

# GENie<sup>®</sup>

## NOTES

by Lou Rocha

The cool autumn air tells us that winter is at hand, a time when indoor projects are undertaken in many households. This month's **Around GENie** visits the Do It Yourself RoundTable—a place where you will find a wealth of useful information. Our **GENie Tip** begins a two-part primer on Real Time Conferences, Library Sysop Larry Duke highlights some oddball oldies, and RTC Sysop Brian Harvey summarizes the most recent conferences. Our **Developer Spotlight** falls on Charles S. Smeton of NewStar Technology, distributors of STraight FAX. I hope you enjoy this issue!

### GENie Tip – RTC Commands

by Lou Rocha

With the recent drop in GENie rates, more people have been attending the various Real Time Conferences. On Sunday Mike Allen hosts the HelpDesk RTC where you can ask questions about your computer(s), peripherals, operating systems, utilities, etc. Yours truly hosts the Monday Night DTP/Graphics RTC. Wednesday is Open House and anything goes! Rounding out the schedule is Dateline Atari! with Bob Brodie on the first Friday of each month. The Sunday RTC begins at 9:00 p.m. Eastern while all others start at 10:00 p.m. Eastern.

If you wish to join the growing numbers of RTC participants, log on to GENie and type **M475;2**. If you are using Aladdin to navigate GENie, just click on **Log on to the RTC in the Roundtable menu**. You will be taken to the RTC "front door".

GENie                      Page 475;2  
The Atari ST RTC  
Version 3.15  
50 users in the RTC.  
Address of <ST.LOU> will be used.  
What ROOM (1-5), or <0>uit?

The HelpDesk and Open House RTC's take place in Room 1. Monday's DTP RTC and Dateline Atari are held in Room 3.

Room 1, The General Club room.  
\*\* <ST.LOU> is here.



The first command is the **/nam** (name) command. This will tell people how to address you during the RTC. People use their nicknames, business names and, occasionally, their real names!

```
/nam Lou
** <[Lou] ST.LOU> was <ST.LOU>
Name is now [Lou] ST.LOU
```

Now that you have a name, it's courteous to make an initial greeting to people in the room.

```
<[Lou] ST.LOU> Hello everyone
```

You will be welcomed by the RTC sysop host and probably by a few others, as well! Now you should get a quick list of who is currently attending the RTC. This requires the **/sta** (status) command. Following is part of the list from the recent Current Notes/ST Informer RTC:

Room 1, The General Club room.

Job	City	Room	Sta	Mail-Address
1	Sterling, VA	1	N	[CN] JOE.WATERS
7	Dartmouth, NS	1	L	[Host] BRIAN.H
23	Don Mills, ON	1	N	[Lou] ST.LOU

Most RTC's are informal, which means that everyone can "talk" at anytime. The CN/STI RTC was formal, which means that only the host and special guests were in talk-mode. Other participants are in listen-mode until the host uses a command to let them talk.

During a formal conference you have to **/rai** (raise) your hand to tell the host that you have a question or comment. The host will acknowledge you via a private message called a **/sen** (send) and will tell you when it is your turn to talk. In the meantime, you can have a private conversation with anyone else in the RTC.

To **/send** a private message to someone, you need to know their job number. If you look at the status list above, you will see that each participant has their own job number. Here is a sample sequence:

```
/sen 1 Hi Joe!
Message sent to Job 1
/sen 7 Busy night, Brian?
Message sent to Job 7
```

The incoming **/sends** looks like this:

```
** <[CN] JOE.WATERS> (Sent by 1) How
are you, Lou?
** <[Host] BRIAN.H> (Send by 7)
Nice crowd...
```

For now, the only other command you might want to know is the **/hel** (help) command, which can also be ac-

cessed by typing ?. There are a lot of commands in the help list and next month we will take a closer look at some of them.

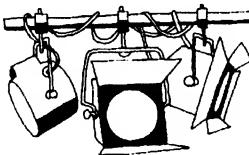
In closing, I would also like to mention that many of the formal RTC's have door prizes usually consisting of a free copy of the special guest's product. In the past, RTC's users have won copies of *Calamus SL*, *Outline Art*, *Invision Elite*, magazine subscriptions, *Atari Works*, *MultiTOS*, *SpeedoGDOS*, etc. You can always find the schedule of upcoming RTC's on Page 475, the front door of the ST RoundTable. If you need any information about an RTC, send email to **RTCS**. See you next month for Part Two of our RTC primer.

## Developer Spotlight

by Lou Rocha

### Charles Smeton

NewStar Technology



NewStar Technology provides one of the leading edge programs for Atari users—*Straight FAX!*. This product gives every Atarian with a modem the ability to send and receive faxes using his favorite computer. NewStar became the distributor for this excellent product last year under the direction of Charles Smeton. Join us as we meet him.

*Charles, thank you for doing this interview. Please tell us a little bit about your background and training.*

I have owned Atari computers for more than 10 years and have been writing software for them ever since. I am also an Electrical Engineer and have more than 12 years experience in the areas of software, systems and hardware engineering.

*May we have some background on your company and its products?*

NewStar Technology Management was formed in 1990 and is based in Columbia, Maryland (located between Baltimore and Washington, D.C.). NewStar is involved in various computer hardware and software related ventures, including software development on the Atari computer platform.

Our current product is the *Straight FAX!* send/receive FAX software for the Atari ST/STe/TT/Falcon computers. Around the time that this interview is in print, we expect to have released *Straight FAX!* 2.0. Version 2.0 will add many new features, the most significant is the support for Class 1 FAX Modems. With version 2.0, *Straight FAX!* we will support SendFAX, Class 1 and Class 2 FAX Modems. Version 2.0 will also add support for direct import of *First Word*, *First Word Plus*, *Word Writer ST* and PCX files to FAX format. This is in addition to the Image, Degas/Degas Elite Hi Rez, GEM Metafile, ASCII Text and our own FAX format.

*Straight FAX!* also includes "Print to Disk" drivers for applications such as *Calamus 1.09N*, *Calamus S/SL*, *Pagestream 1.8x/2.x*, *Calligrapher 2/3*, *That's Write 2.xx*, original Atari GDOS, FSM/Font GDOS (i.e. *WordFlair II*)

and Speedo GDOS (*Atari Works*). These drivers are used in place of the user's normal printer driver to "Print to Disk" pages of a document from the application's print command to a series of FAX files that are ready to send with *Straight FAX!*

Beyond *Straight FAX!* 2.0, we are looking into adding Voice Mail capabilities that are now becoming available as options on FAX Modems.

*What kind of Atari computers have you used/owned?*

I started out in 1982 with an Atari 400 with 16K bytes of RAM and the Tape Recorder. I figured out a way to modify the 16K memory board to 48K using 64K DRAMs (the state of the art back then). Later, I bought an Atari 800 and an Indus floppy drive. A few years later, I bought a 130XE. A few months after the 520ST was released, I bought a 520ST, with an SCI1224 (which is still in use today) and an SF314 double sided floppy drive. This was a very early model that had to boot TOS from a floppy. When TOS 1.00 came out in ROM, I upgraded it and then later added a home brew 1 Meg piggyback upgrade to it. I eventually bought a monochrome monitor and an SH 204 20 Meg Hard Drive. A few years later, I bought a Mega ST4 and sold the 520ST, which was later upgraded with a T-16 16 MHz 68000 accelerator. I am now using a Mega STe/4/50 and a Falcon030/14/65 for development and testing.

*To what extent does GEnie help you to service your customers?*

Since *Straight FAX!* (and its Send Only predecessor) were released, we have provided technical support in the ST Roundtable BBS (Category 4, Topic 24). Between the message area and private GEMail, we are able to answer most of the users' questions within a few days. Having this service available to our customers makes it a lot easier for the telephone technical support personnel at Toad Computers (Dave, Jennifer and Ray), as it is sometimes easier to explain a problem in a message than on the phone. With the advent of Internet access, we receive E-mail from all over the world and from users on other on-line systems in North America.

We currently also have a private Beta Test Library and Category in the ST Roundtable, where *Straight FAX!* Beta Testers have access to the latest beta versions and can discuss their findings.

In the past, we have used GEnie file mail to send updates directly to registered users and consider GEnie and other on-line services a vital part of our technical support and development efforts. In the development area, GEnie provides us with constant contact with Atari and other developers to allow us to maintain the highest degree of compatibility with the latest hardware and operating system releases from Atari and third party applications.

*What Atari software do you regularly use?*

My primary use of the Atari computers I have at this time is for development work. This includes many different tools from the Atari Developer's Kit, *Megamax Laser C*, and several other utilities. For compatibility testing, we use

a variety of applications and operating system extensions, such as *Atari Works*, *Speedo GDOS*, *Tempus*, *Hotwire*, *MultiDesk Deluxe*, *Pagestream*, *Touch Up*, *Easy Draw*, *Silhouette*, *MultiTOS*, *Scan Lite*, and various CPX's.

In the past, when I was the newsletter editor for the Maryland Atari Computer Club (MACC), I used Timeworks *Desktop Publisher*, *G+Plus*, *Touch Up* and *Ultra-Script* to prepare the newsletter each month.

*What is your choice of programming software?*

I currently use *Megamax Laser C* and *Laser DB* source level debugger. I will probably eventually switch to another C compiler that supports 680x0 code generation. Since the *Laser C* shell is not Falcon compatible, I use the compiler/linker with the Gulam (UNIX like) shell. I also use a number of the tools in the Atari Developer's Kit, such as the *Resource Construction Set* and the *Icon Editor*.

*Do you have a suggestion to improve this platform?*

That's a difficult question. If I had the right answer, I am sure that someone in Sunnyvale would want to pay me a lot for it ;—). The bottom line is market size. A larger market size would attract the attention of software companies to possibly port their applications to the platform or to develop new applications around the capabilities that the Falcon030 brings, such as the DSP.

This is where it gets a bit difficult. The way you increase the market size is to convince the public they would be better off buying your product. This requires advertising and a wide variety of software applications. The problem is then to attract new developers to write the wide variety of applications, without the installed base required to be profitable.

I am sure that all Atari owners would like to see major software publishers develop Atari software. Maybe this will happen in the future. At the present time, it appears that Atari will be focusing 80% of its energies into the Jaguar game system. Hopefully, there will be spin-offs from the Jaguar that can benefit the computer side of things.

On the hardware side, I would like to see a 40-50 MHz 68040 successor to the Falcon with video that supports 1280 x 1024 x 16 million colors, a detached keyboard Tower case design with multiple internal card slots (PCI Bus). There are some very exciting things coming out of Atari on the software side with MultiTOS, Speedo GDOS and *Atari Works*, the next step is to have a computer that is on par (processing-wise) with other platforms.

Beyond that, one thing that I would like to see (although I am not holding my breath) is Microsoft Windows NT ported to the 680x0 and the Atari hardware. This would make the process of bringing applications to the Atari a simple matter of re-compiling for the Atari target processor.

*Do you have any additional info or comments?*

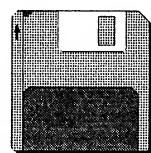
Yes. If you are reading this interview while standing by the magazine rack at your favorite Atari dealer, support them and *Current Notes* by buying a copy of this magazine. *Current Notes* and Joe Waters have been a steadfast constant in the North American Atari scene for over a decade.

Many magazines have come and have gone by the wayside during this time. You could almost say that *Current Notes* is the Cal Ripken of the Atari Press. Both have never missed a start in more than 12 years! I guess that I am lucky to have both of them in the area where I live!

Thank You,  
Charles Smeton

NewStar Technology Management  
P.O. Box 122 Columbia, MD 21045-0122;  
GEnie: C.S.SMETON; CIS: 73047,2565  
Technical Support (provided by Toad Computers)  
Voice: 410-544-6943; FAX: 410-544-1329  
BBS: 410-544-6999

*Thank you, Charles and best wishes for continuing success at NewStar!*



**ST Library**

by Larry Duke

*Let's see.... We've covered the serious stuff – Programming, Utilities, and the like. We've covered entertainment and graphics. Let's do something a little more fun this month – totally useless programs and files that you really have to have. That seems a little harsh. These files aren't useless – they were designed to be fun. The ST/TT/Falcon combination does great games, super Desktop Publishing and Music, and exceptional graphics. The word processors and financial calculators and spreadsheets available are used quite often by many users. But, let's face it, if you can't have a little fun now and then, what good is it? Besides, there is some interesting philosophy in many of these programs. (All of these files can be found in Library #21—The Other Stuff, unless otherwise noted.) Submitted for your approval:*

**File #28015 MCGUN.LZH uploaded by TQUINN**

Did you ever have one of those days? You know the kind – your programming project is giving you address errors, but the code looks right? Your balance sheet doesn't? Makes you just want to throw the keyboard one way and the monitor the other sometimes, doesn't it? FEAR NOT! Just as psychologists have placed punching bags in their offices, there is a totally non-destructive and digital way to save what's left of your sanity. Enter MCGUN.LZH. This desk accessory has allowed me a few very satisfying moments during frustrating debug sessions, and I'm sure it can do the same for you. Simply click on the MACHINE GUN desk accessory and vent those frustrations. Works in any resolution. Mow down your spreadsheet with a few scattered rounds, complete with sound. A simple click on the right mouse button restores your screen. A well written, good intentioned, and badly needed desk accessory.

**File #27873 FORTUN12.LZH uploaded by CODEHEAD**

When I installed this EXTEND-O-SAVE module as a screen saver, I found myself just watching it work. Some-

times my wife found me STILL doing it the next morning. Some quick, witful, one-line philosophy and fun appears on the screen in random positions, then is replaced by another seconds later. Easily configured to YOUR delay time preferences, this module for CodeHead's WARP9 is really a jewel. You can even insert your own insightful outlook into the text file and have YOUR words immortalized on screen. Create a text file with your theories and observations (80 characters per line max, please) and watch them streak on the screen while you're waiting for something else to happen. The CodeHeads have really outdone themselves here. Comes complete with a file of one-liners for every occasion. Entertaining? You bet!

#### **File #27644 GAGS.LZH uploaded by OUTRIDER**

This is a great collection of gag programs. Make your mouse respond to gravity, your trashcan talk, and more with this assortment. Some come complete with source code for you assembly hackers out there who can understand German. Works in ST Resolutions, but best in ST Monochrome.

#### **File #21292 EYECON.LZH uploaded by LARRY.D**

I really like this file. Maybe it's because I always work better with an audience. A great little desk accessory that puts up a pair of eyes on the screen that follow the mouse wherever it goes. Even winks at you when you press a mouse button. Drives my wife and my mom crazy (another reason I like it so much). Works in all resolutions.

#### **File #29647 DAWN\_E.ZIP uploaded by GRMEYER**

Many of you have seen the great screen saver program for the PC called *AFTER DARK*. This desk accessory goes one better with *BEFORE DAWN*. Originally written in German, this English translation of a module oriented screen saver works in all resolutions. Some of the modules are intended for use with 256 colors, specifically for the TT and Falcon. Bigfoot walking on your screen. Designs and colors in a constant state of change. Flying Toasters. Even Mr. Sulu taking us to warp speeds is available in this program.

#### **File #28025 COCKTAIL.LZH uploaded by LOTS-ABYTES**

Hard day at the office, and now you want to settle into the easy chair with a nice, cold glass of..... "what should I have?" This program gives you the answer. For use in ST LOW RESOLUTION only, it's a bartender's guide that will help you pick out that special concoction you're thirsty for. Move over, Mr. Boston.

#### **New I.A.A.D. Member**

The Independent Association of Atari Developers has just updated their membership list and one new member has been added:

Craig Buchanan [C.BUCHANAN] Zocra Technologies *Style/Stipple*

If you are a registered Atari developer who is interested in the services of the I.A.A.D., you can send electronic mail to PERMIT\$ on GEnie. The current president, Dorothy Brumleve will answer your inquiry promptly.

#### **Around GEnie**

by Lou Rocha



Long before I discovered computers I was an avid home handyman. I love to do renovations and build furniture when time allows. I still subscribe to a number of trade magazines but I never considered looking online for this kind of information—until this week! Lo and behold, the Do It Yourself RoundTable is a handyman's (and handywoman's) delight.

Located on Page 1430, RT Sysop Paula Gilbert [LASS] has set up a roundtable that covers every facet of home repair. This RT also has its resident specialists: Mac MacLachlan is the Assistant Sysop; Eric Wahlstrom, Windows and Doors; Bill Ellis, Home Appliance Repair; Mark Wilkinson, Electrician; Rob Detwiler, Librarian; The Tool Guys are Ozone and Appleseed.

In the Bulletin Board you will find categories dedicated to the following topics: Carpentry Workshop, Doors & Windows, Kitchens, Bathrooms, Home Appliance Repair, Roofs and Siding, Decks & Porches, Landscaping, Electrical, Plumbing, Tool Talk, HVAC—Heating, Ventilation and Air Conditioning, The Whole House, Finishing, The Pro Shop, Environmental Concerns, and Odds & Ends.

The library area is relatively new but contains a number of useful files for developing plans, consulting contractors and checking other aspects of your latest home project. The DIY RT also has a Real Time Conference area in which regular discussions are held. In fact, Paula has recently connected with several industry publications and will be giving away free subscriptions to participants in the RTC's.

If you are looking for another reason to justify your online time to a curious spouse *grin*, why not try the DIY RT. Invite your spouse to browse the RT with you.

#### **RTC Highlights**

by Brian Harvey



Greetings, everyone, and welcome to another edition of news from the ST RoundTable Conferences (RTC). For this issue we have three conferences to discuss and the first one concerns Darek Mihocka. In case you aren't familiar with the name, Darek is the creator of *Gemulator*, *ST Xformer*, and *Quick ST*. On August 18, 1993 he was the guest at the BRANCH ALWAYS SOFTWARE (BAS) RTC concerning his latest project, *Gemulator 3.0*. This is an Atari ST emulator that runs on IBM compatibles, DOS, Windows, and OS/2 based PCs. However, *Gemulator* is not an emulator;

rather it runs TOS ROMs as straight 68000 code, like any other program. What it does is trap all accesses to hardware and converts them to PC hardware references. According to Darek, it is better than a real ST since it has higher disk capacity, a larger memory limit, and much better graphics. Darek also stated that he is working with Atari developers to make their products Gemulator compatible. He is doing a product swap with many Atari ST developers. Darek gives them a Gemulator and they give him the latest copies of their software. So far, about 20 developers, including DMC Publishing, Gribnif, Codehead, Fair Dinkum, and Dave Beckemeyer have participated in this exchange. For example, Darek received Geneva in a swap with Gribnif. Darek has the Geneva beta running without any problems and there is a screen dump of Geneva in the latest Gemulator newsletter.

According to Darek, Gemulator requires only 1.3 megs of hard disk space and does not require its own partition to run. The only restriction is that the HD partition must be less than 32 megabytes. Why? After 32 megs, MS-DOS and GEMDOS (Atari TOS) format disks differently.

One advantage of RTC's is the opportunity to ask questions. After reading the BAS newsletter, I was wondering about Amiga emulation on the IBM PC. Darek stated that he is working on an emulator for the PC to emulate something other than an ST. However, since it is "in the works." it is too soon to say anymore on it.

The future of this product seems healthy and Darek plans to add more code that will emulate more chips and ports on the ST. At the present, time the Gemulator's biggest hurdle is lack of joystick and MIDI ports. Until recently, other ports had a higher priority for compatibility; but now Darek has more time to work on support for these two ports.

I guess one of the big questions is how fast is it? For example, Darek stated to emulate an 8 Mhz ST, you need a 25 Mhz 486 or 486SX. To emulate a 16 Mhz Mega STE you need a 50 Mhz 486. The reason is that for every three clock cycles of the 486 it emulates one clock cycle of the ST. Not bad, and particularly with all the newer and faster processors on the market.

The second RTC featured *DATALite 2 (DL2)*. This is Oregon Research Associates' new disk doubler. Bob Luneski was the guest at this August 25th, 1993 RTC and to say it was interesting does not do it justice. Bob is not only a guru on HDs but a wizard at answering questions! He began by discussing *DATALite 2* in some detail. He commented that it is a powerful program providing real time online data compression for both floppies and hard disks. *DL2* transparently (BIOS level device driver) doubles the storage size of your disks. *DL2* compares favorably to similar products on the IBM/Mac and the Atari. Bob verified that it is very similar to *Stacker* or the compression in MSDOS 6.0, since it is a disk level compression transparent to the system. Therefore, application programs are completely unaware of *DL2*'s presence. Compatibility is always a big issue. Bob assured us that the only compat-

ibility problem encountered so far is that *DL2* will not install on some drives with VERY old Supra hard disk drivers. The solution is simple; update the driver to a recent version of HDX.

To me, memory is a big issue; but I forget why [grin]. I find even with four megs, I am not happy. However, *DL2* takes a minimum 50K of memory. The performance is greatly enhanced if you have a DL cache of 256K.

It pays for some people to attend GEnie RTCs since there is usually a chance to win door prizes! This RTC was no exception and two lucky people walked away with prizes for just being there! Chris Cassaday received a copy of *DATALite* and Rod Martin is the first to try one of Oregon Research's new products: the introductory midi program, *Sequencer One*.

Of course, any Oregon Research RTC would not be complete without a question about *Diamond Back*. Bob teased us by indicating that *Diamond Back 3* is not only a major upgrade, but is real cool! However, we will have to wait. It will be shown, but not available, at Glendale.

Speaking of updates, *Harlekin III* is expected by the time you are reading this article. At the present time, Bob is only waiting on the manual. There are too many new features to mention here but American date format is definitely one of them.

RTCs are always a great place to unveil new products and this RTC was no exception. Oregon Research had 13 new products to announce that they are now distributing. Unfortunately, this short article cannot give them justice. Among the products is *Personal Finance Manager Plus*, which is the perfect solution for home and small business finance and accounting needs. Another product is *3D Calc*, which is a 3-dimensional spreadsheet. The rest of the list includes *Quartet*, *Replay 16*, *Stereo Replay*, *Stereo Master*, *Video Master*, *Sequencer One*, *Sequencer One Plus*, *Breakthru*, *Breakthru Plus*, *The Hit Kit*, and *The Sample Series*. Quite a list and, I am sure, welcomed by all.

This column would not be complete without discussing the latest Dateline Atari! with Bob Brodie—in this case, the First Anniversary Edition on Sept. 3, 1993. It is hard to believe that Bob has been doing these formal get-togethers for a year now. In celebration of this anniversary edition, Atari, with Bob's help, gave away a copy of *Atari Works*, two copies of *MultiTOS*, two copies of *SpeedoGDOS*, and as a special extra bonus, a copy of their latest Lynx offering, *Lemmings!* If you attended this event, then one of the winners could have been you!

Well, let's talk about the Atari Lynx first. According to Bob, approval has been given to start manufacturing two new titles, *Malibu Bikini Beach Volleyball*, and *Ninja Gaiden III*. Out now is *Lemmings*, which is an excellent conversion of the popular computer game and *Jimmy Connors Tennis* (one of the largest games—4 megs). A lot of people are wondering about *Eye of the Beholder*. Bob is hoping this Lynx game will be in stores for Christmas.

Next month I will be discussing the Geneva RTC, but, in the meantime, Bob stated an interesting point. Bob be-

lieves you don't need to choose between MTOS and Geneva. Instead, use BOTH at once! Bob's reasoning is that Geneva really replaces the AES, not TOS, and thus both could be used together.

A question I am deeply interested in was the possibility of higher-end Falcons. Bob would not start a rumor and thus commented that there are plans afoot and that we should be pleased; but that's all he would say. Concerning plans, Bob answered a question on the future of *LDW Power*. Atari almost had a deal with a developer, but it fell through. Therefore, they are now looking into other options.

Bob informed us that Atari's new service manager is Jim Jackson and he has years of quality control and service experience. According to Bob, Jim is a first rate professional and is familiar with manufacturing in the Far East. This appointment should help in decreasing the time from manufacturing plant to end user.

Since next month I will be discussing the special RTC on the Jaguar, I will keep the Jaguar information fairly brief. Well, brief for me that is. Bob stated that Atari is overwhelmed at the amount of attention that the Atari Jaguar is receiving. Not only as a 64-bit home entertainment system, but also as the main board in coin-operated video arcade games! Also, a number of people feel that the Jaguar has enough power for Virtual Reality. In addition,

video game magazines are anxious for any information on this new game machine.

The mail order market for the Jaguar won't be opened up until after the initial roll out in NY and San Francisco. Bob stated that the advertising for the Jaguar will primarily be television and, at the same time, will include a big push for the Lynx.

Some people were concerned about the screen shots of the Jaguar, which were uploaded to GEnie. It was pointed out that seeing the pictures in ST low rez on a stock ST is not the same quality as seeing them on a Falcon030 in true color mode. It seems that a machine of this calibre needs a high quality, video-wise machine to view it.

For game developers reluctant to jump into the Jaguar scene, Bob had some good advice. A developer for the Jaguar will have more power at his or her disposal than with any other system. Also, since the Jaguar is reasonably priced with far advanced technology, a developer can "have some of the finest games available on the planet." Not bad, and I can't wait to see one!

Well, I am late again with my submission (I'm a born procrastinator) and, thus, I will say "ta ta" for another month. I will leave you with a quote from Bob Brodie: "the Atari RTs on GEnie are THE PLACE TO BE for all Atari owners!"

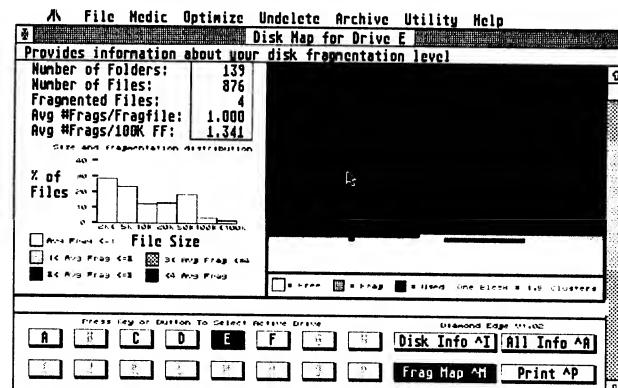
### ***Diamond Edge* (Continued from page 33)**

data will still be intact if you un-zero immediately after zeroing, but if you've written to the disk, there will be some corrupted data, depending on how much you've written. Wiping a partition is a special kind of zeroing. It not only erases the FAT and root directory sectors but overwrites every sector of the partition. There is no way to recover your data if you wipe a partition.

To help you keep track of what is where, or examine a text file, you can browse your disks, view a text file, or print a text file. All in all, *Diamond Edge* contains everything needed to keep your disks in top notch shape.

### **Conclusion**

Until now, there hasn't been an all in one package of disk utilities that provides for total file security. Together with *Diamond Back II*, *Diamond Edge* fills that need and gives the user peace of mind. I've used *Diamond Edge* for six months now, and it's worked flawlessly. I've also used the *Hard Disk Turbo Kit* and *Tune-Up*, both from Michtron but I just feel safer with *Diamond Edge*. It offers much more in the way of data security, and the disk medic seems much better at correcting problems than *Tune-Up*. The manual is excellent, and explains everything in a very easy to understand



manner, even for those not familiar with the inner workings of disk drives. There is also an online help function that explains all of the drop down menu choices, making your disk checkups even more painless. I'd like to see a sector editor added, and maybe even a version with *Diamond Back II* incorporated into the code. If that's not possible, a special package deal for *Diamond Edge* and *Diamond Back II* would be great. For data security and the health of your hard drive, *Diamond Edge* fills the prescription perfectly.

*Diamond Edge*, Oregon Research Associates, 1600 S.W. Pacific Highway, Suite 162, Tigard, Oregon 97224. Phone: (503) 620-4919, GEnie: ORA.TECH

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#### ToadStar 170MB Falcon System – \$349

#### ToadStar 245MB Falcon System – \$399

#### ToadStar 345MB Falcon System – \$499

### Quality Falcon Enhancements from Compo USA

■ The Falcon's VIDEOPROC graphics processor is capable of quite a lot – much more than just 640 x 400! And with a little help from the ScreenBlaster hardware/software package, you can push your Falcon up to resolutions of 1152 x 832 and beyond. **Falcon Speed** is the AT emulator for the Falcon. Just plug it in (into the internal expansion slot) and you're ready to run MS-DOS 6, Windows 3.1 (includes speedy color driver), and all the programs that work with them!

#### Falcon Screenblaster Enhancement – \$99

#### Falcon Speed 80286 16MHz PC Emulator – \$279

### Monitor Adapters – You Simply Have to Have One

■ With the Atari Falcon, you can always use another monitor adapter. Heck, there are three different models!

#### Falcon Composite Video Adapter – \$14.95

#### Falcon VGA Video Adapter – \$14.95

#### Falcon ST Color / Mono Video Adapter – \$14.95

#### Toad's Falcon Universal Monitor Adapter – \$34.95

### Software that Cries Out, "Buy Me! Use Me! Love Me!"

■ We've found a few Falcon titles that may just be essentials. **TruePaint True Color Paint Package** – \$64.95 **TrueImage Photo Retouch Tool – Call**

#### Photo Show: Mix Photo CD Graphics with Audio – \$34.95

#### Falcon 256 Color Version of Ishar and Ishar 2 – \$45.00

#### Falcon 256 Color Version of Transarcita – \$45.00

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**long and hard to find the best products**

Integrated personal productivity has come of age for the Atari ST/TT/Falcon computers with AtariWorks! It includes a word processor, a spreadsheet, and a database. *Word™*, like word processor is a breeze to use and includes a complete thesaurus and spelling dictionary (the same ones used with *Lotus Ami-Pro™*). Full-featured Excel-like spreadsheet sheet allows use of scalable fonts. Database is *dBASE™* file compatible and is graphically oriented. And for a limited time only, Speedo GDOS is included free! Don't miss this exciting new program. Order yours **today!** **Just \$109.95 Complete!**

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Golden Img 720K Drive \$124  
PC Speed \$179  
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Calamus ST \$58	Crossword Creator 2 \$24	Gram Slam \$23	LDW Power \$109	NVDI FD Replace \$73	WERS \$29
Calassistant (Helper) \$29	DBMan 1.43 \$23	HiSoft Basic 2 \$94	Logo Library \$29	Stalt The Market \$59	Word Search Creator \$24



## 8-Bit Tidbits

by Rick Reaser

The rest of my computer (that wasn't in my suitcase) finally made it to school. Much to my surprise, my hard drive actually worked the first time I plugged it in. I think a lot of my previous problems have been dirty connectors. While on the left coast this past summer, I had a series of sanity-threatening problems. I ended up cleaning every connector on my set up. I think the big culprit was the ICD extension card from my cartridge/ECI port on the 130XE to the PBI connector on MIO. The connector on my SpartaDOS X cartridge was also very dirty and that was causing some strange lockups. I cleaned all the edge connectors with a pencil eraser and haven't had a problem yet.

I'm still trying to get connected to FidoNet. The local hubs here haven't been too responsive. I'm also still trying to get my Internet account fully functional for my new job. They've lost the paperwork twice. (Remember, I work for the government. I hope I don't have to wait for Vice President Al Gore to "re-invent" government, before I get my account.)

This month our big topic is Atari 8-bit BBS systems. I was trying to get a review of *OASIS* for this issue, but couldn't find anyone willing to do it. If you want to write about *OASIS*, or know someone who might want to, please let me know.

Since I've been here in Northern Virginia (Washington, DC to some), I've had the opportunity to check out some of the local 8-bit store action (and inaction). I've managed to visit Toad Computers and L&Y Electronics, who both advertise here in *Current Notes*. Next month, I plan to visit The Electronic Clinic. Here's my Tbad/L&Y report:

### Toad Computers

Toad turned out to be about 50 miles from my room here at Fort Belvoir. It was a nice Saturday morning drive. When I got to the store, I was greeted by a slightly faded, but proud Atari cloth banner in the window. *Current Notes* graced their magazine rack as I walked in the door.

The store was actually quite busy with customers that morning. There was a guy who flew in from Ecuador as well as several out-of-state visitors. On top of that, the phone was ringing off the hook. Jennifer was really jumping. Dave was doing hard drives in the back. It was a pleasant sight for an Atari store, but I didn't really get to talk to them very much until later

## 8-Bit BBSing

in the day. I also visited their music store, which sells new and used CDs. It's the first music store I've seen with an unabridged collection of Frank Zappa's works. I actually wandered over there to discuss MIDI stuff. Most of my time was spent "inventorying" the vast amount of 8-bit software and hardware in the store. Let me cover that first.

Toad sells both new and used Atari 8-bit hardware and software. If you are looking for something specific, they are worth calling. They have a lot of used things that you just can't find anymore. Of course, they had two "back rooms" filled with more stuff. Everything was reasonably priced. There was a 130XE with a 1050 and monitor out on the floor in plain view, so you could test/try/demo items.

Here are a few of the interesting things I saw:

BASIC XL & XE carts w/exts & manuals	SpartaDOS X Manuals
SpartaDOS Const. Sets	Basic AtariLab & modules
Mapping the Atari	Rambo Upgrades
Load Runner Cartridges	Dark Chambers Cartridges
Invisiclues Books	Aces of Aces Cartridges
Hypnosis w/brainwave synchronicity (?!?)	All Infocom programs
Light Pens	Speed Reading
Pilot	Joystick extensions
1200XL new in box	Track Balls (CX-80)
	Billions of them!
	Lots of Books

Dave Troy, the owner, started out with an 8-bit system and, when he opened his store, he focused on the ST market, while still supporting the 8-bit. His BBS was run on an 8-bit. Tbad will do 8-bit repairs, if it is economically feasible (new or replacement not cheaper than the repair). At one time, they had a giant computer database of all their 8-bit stock, but due to an unfortunate event, the list is gone now. Many of the 8-bit items are listed in their catalog. Tbad is currently putting together a new catalog. And yes, they had two Falcons up and running in the store.

I was a victim of "software title overload" before I left. Of course, I didn't leave the store empty handed. I got *Cave Girl Clair* for my 5-year-old daughter and *Conversational German* for me and my 8-year-old boy. For further information, contact: Toad Computers, 570-F Governor Ritchie Highway, Severna Park, MD 21146. Phones: (800) 448-TOAD Orders; (410) 544-6943 Info; (410) 544-1329 FAX; (410) 544-6999 BBS.

## L&Y Electronics

On the way back from Tbad, I stopped at L&Y. It's just out the back gate from Fort Belvoir. I used to frequent L&Y when I was stationed here in the mid-80s, the heyday of Atari computers. Things have changed quite a bit, since then. Though they still support the Atari line, L&Y is principally an IBM compatible store now. The Atari 8-bit items are all in the back of the store. The ST things are little closer to the front. L&Y didn't have near the number of 8-bit products that Tbad did, but they did have a few interesting new and used things which I've listed below.

850 Interface	820 Printer
Indus GT carrying case	130XE Computer
1027 Printer	Several Percom Drives
Allen Macroware XL256K for 800XL	Several old 800s
Masuda Clip Art for Typesetter	AtariLab Light module
	Some Books

Of course, *Current Notes* was in the newsstand, including some back issues. The funny thing about that *Masuda* clip art was that the same kind of clip art by the same company was for sale for IBM machines on a different wall, only it was 5 years newer. It seems that L&Y is not the only one moving to the PC compatible. My impression is that it is pretty tough to be an Atari dealer in a PC world. L&Y is hanging in there though. Most of the 8-bit items in the store were hardware. If you are looking for a specific hardware item, I'd give them a call soon. There isn't that much in terms of 8-bit stock left in the store. For further information, contact: L&Y Computers, 13644C Jefferson Davis Highway, Woodbridge, VA 22191. Phones: (703) 494-3444 Voice VA; (703) 643-1729 Voice Metro; (703) 494-3663 FAX.

## Elsewhere in This Issue

As I mentioned earlier, we have yet another 8-bit "mini-theme" this issue! This month, we have reviews on two of the more popular 8-bit Bulletin Board Systems, *BBS Express Pro!* and *Carina*. I've had the opportunity to use both systems and both are impressive—equalling the IBM PC boards most of us frequent.

First, Lou Trapani reviews the Carina Bulletin Board System. Lou's been using an Atari 8-bit for over 10 years. As a working artist, his Atari Classic has been useful in many ways. Lou eventually purchased Atari 16 and 32-bit computers and uses them all. They've helped him to get his business, Machine Arts & Publishing, off the ground. Even today, he uses his Atari 8-bit everyday. Lou has been interested in BBSs since he first got a modem about 10 years ago. He's been a SysOp for a little over a year now. Lou is the

"Carina Answerman" on GEnie and has opened a fairly active topic on the subject there.

Second, Craig Rothman reviews *BBS Express Professional*. Craig got into Atari 8-bits about the first week the 1200XL was on the market. He was going to buy an 800 but they told him to wait because the newer XL line was going to show up in a week. Craig works as an accounting clerk for a busy, expanding wholesale club chain, handling bill payments for freight, auditing, account reconciliations and so forth. (Sounds like a good job for some computer help.) He's formed the Northeast Net for northeastern boards. For the past year, he's been updating the data for Tim Lowery's shareware programs, *Famous Birthdays* and *This Day in History* that are used on *BBS Express Pro!* boards.

This month, we also resume Frank Walter's continuing series on *TextPRO* macros with a couple practical applications. If you are having problems typing in all those control characters required in a *TextPRO* macro, dig out last month's CN, 'cause help is on the way.

## GEnie News

The 10pm ET Thursday weekly Real Time Conference on GEnie (page 665) has really picked up steam lately. At one session, 15 people showed up and we almost needed a formal moderator. Please join us sometime for fun and info.

The file section on GEnie continues to be active, especially with Info Atari8 Digests. There has been a lot of discussion in the Round Table regarding an Aladdin-type program for GEnie and a small, but encouraging, experimental programming effort is underway along that vein. Several other graphic efforts are also hot topics and several incremental versions of the resulting software are in the library for review and comment.

## CompuServe News

The weekly Conference Online on CompuServe has really dwindled over the summer. Several "recommitments" have taken place and hopefully things will turn around soon. Be sure to drop in Sundays at 9pm ET after you "go atari8."

## Best Products

Best Product's R-TIME 8 clock cartridge clone is still stalled. There is some sort of hangup between the British and Polish programmers. Brad Koda plans to set a deadline and drop the project if the Brits can't deliver. More to follow on this in later columns.

Brad also indicated that work is almost complete on Revision 10 of the Best Catalog. The Catalog will have twice the pictures of the Revision 9 and it will be quite hefty as well—over 100 pages. Brad was quite proud of the effort over the phone. I can't wait to see

it. For more information contact: Best Electronics, 2021 The Alameda, Suite 290, San Jose, CA 95126. Phone: (408) 243-6950.

### Sources List

As I probably mentioned before, I am trying to update the Atari 8-bit vendor list. This time we're trying to keep track of when places were last contacted and by whom. It is a slow process. If you would like to help, please contact me. It entails writing a few addresses and seeing what you get back. We're also trying to get phone numbers and e-mail addresses for the places as well. Each month, I plan to put a little of this in my column. After we're done verifying, I will put a complete file up on GENie and CIS. Special thanks to Richard Detlefsen whom I met on CompuServe (CIS: 74766,1561). He checked out a number places for me. Here are the results of his efforts:

**IB Computers**, 9242 S.W. Beaverton-Hillsdale Hwy, Valley Plaza Shopping Center, Beaverton, OR 97005. Phone: (503) 297-8425. Atari retailer. 8-Bit games, systems, software and hardware. Flyer. Verified Jun 3 '93 rd

**Lake Almanor Public Domain Software**, 333 Peninsula Dr, Lake Almanor, CA 96137. Markets a selection of imported commercial & PD software. Catalog on 1050 disk. Verified Jun 9 '93 rd

**Mars Merchandising**, 1041-B East Charles Road, Lombard, IL 60148-2059. Phone: (708) 627-7462. Public Domain and commercial software and hardware. Verified Jun 7 '93 rd

**Micro Discount**, 265 Chester Road, Streetly, West Midlands B74 3EA United Kingdom. Phone: +021-353-5730; FAX: +021-352-1669. 8-bit commercial close-outs, upgrades. Catalog. Verified Jun 22 '93 rd

**Miles Better Software**, 219/221 Cannock Road, Chadsmoor, Cannock, Staffordshire WS11 2DD United Kingdom. Mail-order source for the Atari. They have many games which were never released in the US. Flyer is of close-outs of existing inventory. Postage at cost. Verified Jun 5 '93 rd

**MWPDS**, 890 North Huntington St., Medina, OH 44256. Catalog of Public Domain software, many unheard of. Verified Jun 24 '93 rd

**NERDS Software**, 18 Wendy Drive, Farmingtonville, NY 11738. Very nice collection of educational chemistry, biology, geography Print Shop icons. Verified Jun 18 '93 rd

**More Than Games**, 8207 Briarwood Lane, Austin, TX 78757-7642. CIS:74766,1561; INTERNET: rixcat@rider.cactus.org. New, surplus, close-outs, and consignment software and hardware. Also service. SASE for current list. Verified May 30 '93 rd

**Evangelo's Atariwares**. In the July/August '93 issue of CN, there was a classified advertisement for an 8-bit Atari vendor I've never seen before. I sent in for the catalog and here's what I saw. Evangelo listed about 250 8-bit titles on about five pages. Most of the "standards" were listed. The impressive thing was the long list of educational titles. There were very few application programs and a whole lot of games. There were several games that I had not seen before. The prices and shipping were reasonable and there was a note that they will meet or beat any price. For further information contact: Evangelo's Atariwares, 27 Stiles Street, Elizabeth, NJ 07208. Phone: (908) 558-9518.

### TWAUG Online

In the July/August *Tyne and Wear Atari 8-bit User Group* (TWAUG) Newsletter, they mentioned that they were now on CompuServe. Their address is 100120,2025. So, if you want talk to the Brits, drop them a line on CIS.

The *TWAUG Newsletter* is really coming along as well. I'm especially enjoying the series, "Cracking the Code," by Keith Mayhew and Roy Smith, which deals with assembly language programming. For further information contact: TWAUG, P.O. Box No. 8, Wallsend, Tyne & Wear NE28 6DQ United Kingdom.

### Emoticon Update

Back in the June '93 *Current Notes*, Mike Mortilla gave us a list of emoticons that we modem users can use as we travel the Information Highway. I have a few updates that I spied in the August 4 Washington Post in an article by Joel Garreau. These came from "Smileys," by David Sanderson and "The Smiley Dictionary," by Seth Godwin. That means that there are now books on this subject!

=:o]	President Clinton
7:"]	President Reagan
:(=)	President Carter
= :-)	President Lincoln
--=-:-)X	Zippy the Pinhead
8(:-)	Mickey Mouse
8(:-)8	Annette Funicello
:-)!<	Hank Aaron
*,->-	Cat run over by car

That's all for this month. You can contact me via the snail mail or email addresses at the front of the magazine.

# ATARI 8-BIT

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Compute's First Book of Atari **\$9.95**  
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First & Third Book Combo **\$14.95**  
First Book of Atari Graphics **\$9.95**  
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Graphic Book Combo #1 & 2 **\$14.95**  
XE USERS HANDBOOK **\$24.95**  
XL USERS HANDBOOK **\$24.95**  
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USING NEWSROOM . . . . . **\$19.95**  
Programmers Ref. Guide **\$9.95**  
The Creative PrintMaster . . . . . **\$7.95**  
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How to 6502 Program . . . . . **\$5.00**  
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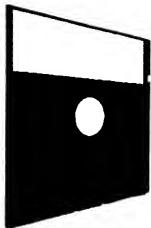
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# TextPRO Macros: A Guide for Beginners

## Part 5 - Envelope Addresses

By Frank Walters

### Where Are We Now?

In Part 4, we finished up the discussion of all the *TextPRO* macro command keys. Last month, we took a detour to develop a program that allows you to create object code from BASIC DATA statements. This month, we put it all together with a couple practical applications. If typing in the macros in this article gets you down, you'll be able to use the program from last month (DATA2OBJ) as a last resort. My recommendation would be to try to type in the macros directly and, if you can't find your errors, go the DATA statement route. Then compare the code.

### Overview

In this installment, I'm going to show you how to create two useful *TextPRO* macros. The first will print addresses from an address list directly onto envelopes. It works with a single address or you can select which addresses to print and which to skip, from a list of addresses. After experimenting with using two banks, I found a better way to do it using a single bank so that a 48K Atari can use the macro. The second macro will find any address in your list from a search string and extract the address for use in a letter or single envelope. If you have to print many envelopes, such as for club mailings, this is a much nicer way than printing labels and sticking them on the envelopes. It is much more personalized for business letters. Labels on letters look exactly like what they are-bulk mailing. I, personally, pay little attention to mail I receive with a pasted label on the envelope.

### Requirements

For the envelope macro, called ENVMAX, you must have a printer that will allow you to print an envelope using friction feed and you must disable the paper-out switch either by dip-switch or software command. The ENVMAX I explain here defines inverse <Y> as the Epson compatible paper-out disable command. This is critical because the envelope is not long enough to prevent the printer from stopping before printing the entire address due to the paper-out switch becoming exposed as the envelope moves up the roller. If your printer is not capable of both of the above requirements, then ENVMAX is not for you. Read how to create an address list, then skip down to the FIND.MAX section.

### \*NEW\* Key Board Conventions

Since our listings have been getting pretty unwieldy, we're going to streamline our conventions for the complex entries a bit. Keys on the keyboard are surrounded by brackets. [START] means the START key. Inverse characters are bracketed by "less than" and "greater than" symbols. <=> means inverse =, which is entered from the keyboard by first holding down [SELECT] then typing the [=] key. Multiple key strokes are indicated by an "underline" symbol or \_ connecting the indicated keys. "CTRL" indicates a "control character," which means the [Escape] key must be pressed prior to entry. [CTRL\_G] indicates that you would first press [Esc] once then hold down the [CONTROL] key while pressing [G]. <CTRL\_G> means to first press [Escape] once, then hold down [SELECT], then hold down [CONTROL] key and, while holding down both of those keys, press [G]. [SHIFT\_INSERT] and [SHIFT\_DELETE] are also "control characters" requiring [Esc] to be pressed prior to the rest of the indicated entry. [CONTROL][G] is not be a control character, so no [Esc] is required; just hold down [CONTROL] while typing a [G]. The same is true for [SHIFT][G].

### Typing the Address List

First, I should describe how to make the address list. It simply consists of a text file with addresses typed in sequence, one below the other. The only limitation is that each address must consist of exactly four lines of text, each line followed by a carriage return. If an address only needs three lines, simply add a carriage return on a blank line for the fourth required line. Do not skip a line below a four-line address in your list. Example:

John Doe  
Company name  
Street address  
City, State ZIP  
Mary Smith  
Street address  
City, State ZIP  
[RETURN]

The [RETURN] key indicates a blank line with just a carriage return in your text file. Name your address list ADDRESS.A or use .B for business, .C for club, etc. You can have more than one address list and even

duplicate addresses for ease of printing envelopes from one list or another. Let me clarify something. You will have the option of printing or skipping over any address in the list when using the macro.

### ENV.MAX Algorithm

The way ENV.MAX works is for the macro to load the address list from disk and then create the print format and return address ahead of the first address in the list. The **<&>1** command is used to restrict printing to page 1 only, and the **<n>** next page command is inserted following the first address so the remainder of the list is not printed. After each envelope is either printed or the address skipped, the address is deleted and replaced by the next address on the list, using the delete and replace functions.

### Creating ENV.MAX

Table 1 shows ENV.MAX in its entirety. Now I will take the macro apart, line by line, so you can see how it works.

```
<i=><CTRL_Y> Active macro> ENV.MAX[RETURN]
@<=><CTRL_P>&<CTRL_A>Load ADDRESS list[RETURN]
```

The first line is just the macro identification line. In the next line, the autorun macro (**@**) will execute when you load the macro using **[START]** from the default (TEXTPRO.MAX) macro. *TextPRO 5.0* uses inverse **<CTRL\_P>** to pre-define the alternate macro command if you reply No to the Ask **<CTRL\_A>** macro. For version 4.56, you can eliminate the “**<CTRL\_P>&**” from this line, since **&** is the default macro when No is the reply. The **<CTRL\_A>** is used to ask whether you want to load the address list, since you may already have the address you want to print in the editor.

```
[CTRL_H][CTRL_H][CTRL_L]ADDRESS.A<CTRL_I>[RETURN]
```

You want to Home the cursor to the top before loading the address list. After the load file command, the filename is typed by the macro and then the **<CTRL\_I>** input mode is entered so the user can either accept the default address filename or change the file extension before hitting **[RETURN]** to exit the input mode.

```
<CTRL_B>&&<=><CTRL_F><n>[RETURN]
```

This is the Goto command to the **[&]** key macro, which is where the macro logic continues if you had skipped the load-address function by replying No to the Ask macro command. **[&]** defines the “Find” string with inverse **<CTRL\_F>**. The “Find” string, in this case, is inverse **<n>**, which will be used to delete the address which has just been printed or skipped.

Table 1. ENV.MAX

```
<i=><CTRL_Y> Active macro> ENV.MAX[RETURN]
@<=><CTRL_P>&<CTRL_A>Load ADDRESS list[RETURN]
[CTRL_H][CTRL_H][CTRL_L]ADDRESS.A<CTRL_I>[RETURN]
<CTRL_B>&&<=><CTRL_F><n>[RETURN]
<CTRL_X>[CTRL_E][RETURN]
[5 spaces]<END OF LIST> - Press <HELP>[RETURN]
[RETURN]
[CTRL_H][CTRL_H]<CTRL_D>PPPP[RETURN]
[SHIFT_INSERT][SHIFT_INSERT]<Y>=56<Z>=57[RETURN]
<&>1<t>8<l>8<p>24[RETURN]
<Y>Your Name[RETURN]
Your street address[RETURN]
Your city, state ZIP[RETURN]
[RETURN]
<d>5<l>30[RETURN]
<n>[ESC][SHIFT_INSERT]< ADDRESSES REMAINING >
[ESC][SHIFT_INSERT]<>[RETURN]
[SHIFT_DELETE][CTRL_-][CTRL_R]<CTRL_Z><CTRL_B><22=>
<CTRL_Y> <HELP> Exit <START> Print <OPTION_B>
Skip[RETURN]
#<=><CTRL_P>[RETURN]
<CTRL_B>80<=><CTRL_F>[RETURN]
[CTRL_-][CTRL_D]PPPP[RETURN]
[CTRL_-][CTRL_R]<CTRL_B><2><=><CTRL_H>[CTRL_H]
<CTRL_U>Y<Z>[RETURN][CTRL_P][RETURN]
[CTRL_H]<CTRL_V>Y<CTRL_V>TEXTPRO.MAX[RETURN]
```

Table 2. FIND.MAX

```
<i= Active macro> FIND.MAX
<i=><CTRL_Y> Active macro> FIND.MAX[RETURN]
@<=><CTRL_T>I<CTRL_F><CTRL_I>[RETURN]
<CTRL_B>##<=><CTRL_A> Clear the Screen[RETURN]
[SHIFT_CLEAR]Y<CTRL_B><11><=><CTRL_K>[CTRL_L]
ADDRESS.A<CTRL_I>[RETURN]
<CTRL_P><3>[CTRL_F] <CTRL_B><22><=><CTRL_M>Okay?
<Y>es <N>o [ESC]<CTRL_-> [ESC][SHIFT_INSERT]
<A>ddress <F>ind <Q>uit[RETURN]
<CTRL_B><2>N<=><CTRL_B>nn<=>[SHIFT_*]<CTRL_P><3>
[CTRL_F]<CTRL_B><2>Y<=><CTRL_B>yy<=>
[CTRL_Q][CTRL_D]PPPP[RETURN]
[SHIFT_CLEAR]Y<CTRL_R><CTRL_B>?q<=><CTRL_B>?a<=>
[CTRL_H][CTRL_H]<CTRL_B><1>f<=><CTRL_F><CTRL_I>
[RETURN]
[CTRL_H][CTRL_H]<CTRL_P><3>[CTRL_F]<CTRL_B><2>?
<CTRL_B>q<=><CTRL_Q>[SHIFT_-]=<=><CTRL_Q>
[SHIFT_-]&<=><CTRL_H><CTRL_Y> Press <START> to
run again[RETURN]
?<=><CTRL_B>//<=>[CTRL_H][CTRL_H]<CTRL_P><i>
[CTRL_V]TEXTPRO.MAX[RETURN]
<3=><CTRL_Y>Not Found - Press any key[RETURN]
<CTRL_K><CTRL_B><2>[RETURN]
```

```
<CTRL_X>[CTRL_E][RETURN]
[5 spaces]<END OF LIST> - Press < HELP >[RETURN]
[RETURN]
```

Inverse **<CTRL\_X>** turns off the screen for speed while the macro is typing on the screen, starting at the end of the address list **[CTRL\_E]**. The next line is added to the end of the address list so you can see when you are done using the list.

```
[CTRL_H][CTRL_H]<CTRL_D>PPPP[RETURN]
```

This homes the cursor to the top of the address list and deletes the first address (4 lines) into the paste buffer and exits the delete mode with **[RETURN]**.

```
[SHIFT_INSERT][SHIFT_INSERT]<Y>=56<Z>=57[RETURN]
<&>1<t>8<l>8<p>24[RETURN]
```

Remember to press **[ESC]** before each **[SHIFT\_INSERT]** so the inverse down-arrow character is printed in the macro. The remainder and next line are printed to the screen when the macro is being executed to format the text for the envelope. Inverse **<Y>** and **<Z>** are the equates for the Epson/Panasonic paper-out switch disable and enable commands, respectively. Insert the correct codes for your printer, if different. *TextPRO* formats &stop printing at page 1, top margin 0, left margin 0, page length 24.

```
<Y>Your Name[RETURN]
Your street address[RETURN]
Your city, state ZIP[RETURN]
[RETURN]
```

**<Y>** disables the paper-out switch. You can follow it with other upper case inverse letters to set your own font, NLQ, etc. Follow these printer codes immediately by your name and return address, using up to four lines. If you only need three lines, include the extra **[RETURN]** on the fourth line.

NOTE: Be sure you have configured *TextPRO* to "Add ESCape" characters using the **[CTRL\_LF]** command. It is best to save your configuration after setting this. Reply **[H]** to the C/R and Linefeed prompts, and **[Y]** to the "Add ESCape" prompt. ESCape (ASCII 27) will be sent by *TextPRO* whenever it encounters an inverse upper case letter. This is essential since the Epson paper-out disable command is actually 27,56.

```
<d>5<l>30[RETURN]
```

Down 5 lines and left margin 30 following return address, for printing the "to address" on legal-sized envelopes. For smaller envelopes, adjust these accordingly. I found for Print Shop Card sized envelopes,

**<d>7<l>15** works nicely. I made up a duplicate ENV macro with these parameters instead and I named it ENV2.MAX.

```
<ni >[ESC][SHIFT_INSERT]< ADDRESSES REMAINING >
[ESC][SHIFT_INSERT]< >[RETURN]
```

This is a tricky line to type. Hold **[SELECT]** to type the inverse **<ni>** and space. You hit **[ESC]** twice to print the escape character in the editor. Then type **[ESC]** a third time before typing **[SHIFT\_INSERT]** to type the inverse down arrow. **[SELECT]** while typing the text message and repeat the escape sequence again. It should show two down arrows pointed to the addresses below that line once the macro is executed. The line ends with an inverse **<space>** before the **[RETURN]**.

```
[SHIFT_DELETE][CTRL_-][CTRL_R]<CTRL_Z><CTRL_6><22=>
<CTRL_Y> <HELP> Exit <START> Print <OPTION_0>
Skip[RETURN]
```

This is another tricky line. Remember to press **[ESC]** to type the SHIFT and CTRL characters on the screen. **<CTRL\_Z>** turns screen back on. Following **<CTRL\_Y>**, the remainder of the line is simply text, the brackets around **<START>** and **<OPTION>** indicate you type the words in inverse by holding **[SELECT]**. The text will appear as a prompt in the status line when you run the macro.

```
#<=>[CTRL_P][RETURN]
```

This line defines the **[START]** key to print the first envelope.

```
<CTRL_6>00<=>[CTRL_F][RETURN]
```

This line defines Goto macro 0 (zero). The **[OPTION\_0]** (zero) macro will delete text from cursor to the "Find" character, which is the address that was just printed, so the **[START]** key and the **[OPTION\_0]** key will delete that address.

```
[CTRL_-][CTRL_D]PPPP[RETURN]
```

This moves the cursor (arrow) down one line to delete the next 4-line address into the paste buffer.

```
[CTRL_-][CTRL_R]<CTRL_6><2>?<=>[CTRL_H][CTRL_H]
<CTRL_V>Y<Z>[RETURN][CTRL_P][RETURN]
```

This moves the cursor up one line and replaces the new address from the paste buffer, Goto macro **<2>**, which reprints the status line message. The **[HELP]** key **[?]** macro is defined to home the cursor and delete text below the cursor instead of clearing

the screen, which retains the filename of the address list in memory. It then types and prints <Z> to restore the paper-out switch function before re-loading TEXT-PRO.MAX from disk, which is the last entry:

**[CTRL\_H]<CTRL\_V>Y[CTRL\_V]TEXTPRO.MAX[RETURN]**

Remember <CTRL\_V> is inverse and [CTRL\_V] is not. You can avoid all this typing (and not learn a thing about writing macros) by typing the data Listing 1 for ENV.MAX using Analog's MLEDIT type-in program or merging the data lines with my DATA2OBJ.LST program, which was published in the September '93 issue of *Current Notes*. In any case, you will have to edit the macro to insert your name and return address in the appropriate lines, along with any printer codes for font selection and paper-out switch commands. [Editor's Note: Since these macros are relatively short and we have a program that eliminates tricky typing, I haven't U/Led them to the on-line services. If someone whines to me, I'll put it on GENIE. Frank requested that his programming not be U/Led to CompuServe.-RR.]

### Using ENV.MAX

This is the easy part. Just insert your envelope, flap open, into the printer. Set friction feed and use the linefeed button to align the top edge of the envelope with the print head, on the line where you want to print your return address.

If TEXTPRO.MAX is loaded, press [START] and type ENV and hit [RETURN]. If TEXTPRO.MAX isn't loaded, simply load the macro with the [CONTROL]\_[V] command. At the prompt to "Load ADDRESS list," press [Y] or [N], depending on whether you have the address already in the editor. Remember, when loading the address list, you can change the filename using the backspace before you press [RETURN]. Wait patiently while the screen is turned off as the macro is formatting the envelope addresses for printing.

When the screen turns on again, follow the instructions on the status line:

**[HELP]: Quit and load TEXTPRO.MAX.**

**[START]: Print envelope and move next address into position.**

**[OPTION]\_[0]: Skip current address and move next address into position.**

An alternative method is to press [CONTROL]\_[P] to print the current address without deleting it so you can print several duplicate envelopes at once. You can also print a self-addressed return envelope by swapping the 4-line return address with the "To" address and using [CONTROL]\_[P] to print. Put your correct return address back before printing any more envelopes.

**CAUTION:** If you move the cursor to edit anything before printing, be sure you return the cursor to the first letter of top line of the current "To" address before pressing [START]. The delete function will delete from the cursor position, so you must have the cursor at the start of the address to delete the entire address after printing it.

### Creating FIND.MAX

This macro uses the same address file as ENV.MAX. The purpose is to find an address to include in the salutation portion of your business letter and add it to the paste buffer for easy placement.

I will not go into detail on typing FIND.MAX. Table 2 shows the complete macro. OR, you can create it by typing Listing 2 using MLEDIT or merging the listing with DATA2OBJ (from the September '93 issue of CN) and running it. Save the resulting file as FIND.MAX.

### Using FIND.MAX

You must have your ADDRESS.A (or other) address list on drive 1. If you have TEXTPRO.MAX loaded, press [START], type FIND and press [RETURN]. If not, load FIND.MAX via [CONTROL]\_[V]. You will be prompted to enter the Find: string. The macro defaults to lower case since the Find function is case sensitive. Type a portion of the name you wish to find in the address list. Use [SHIFT] for typing upper case letters and press [RETURN]. Reply [Y] to "Clear Screen" prompt unless you forgot to save the file in the editor. If you answer [N], you can save the file in the editor and continue with the macro by pressing [START] for the "Clear Screen" prompt. Answer [Y] and the ADDRESS.A file will be selected to load but you have to press [RETURN] to load the default name. You can backspace to change the default name on the command line if you want, then hit [RETURN].

The macro will then move the cursor down to the first occurrence of your Find string and the menu will appear on the status line:

**Okay? Yes No (up down arrows) Find Address Quit**

Answer [Y] if it found the address you are looking for. It will delete it into the paste buffer, clear the screen, replace the address and load TEXTPRO.MAX from disk.

Answer [N] to look for the next occurrence of your Find string. If it cannot find any more matches, the cursor will step right, one word at a time, whenever you hit [N]. With *TextPRO 5.0*, you will get a "Not Found" message, instead. In either case, you can then use one of the other options of the menu to continue or quit.

Use [up] or [down] cursor keys (without [CONTROL]) if you had searched for a string not on the first line of

### Listing 1. ENV.MAX

```
1000 DATA 233,189,153,32,65,99,116,105,118,101,32,109,97,99,114,111,4634
1010 DATA 62,32,69,78,86,46,77,65,88,155,64,189,144,38,129,76,4289
1020 DATA 111,97,108,32,65,68,68,82,69,83,32,108,105,115,116,2821
1030 DATA 155,8,8,12,65,68,68,82,69,83,83,46,65,137,155,135,3302
1040 DATA 38,38,189,134,238,155,152,5,155,32,32,32,32,197,206,5047
1050 DATA 196,160,207,198,168,204,201,211,212,32,45,32,80,114,101,115,7196
1060 DATA 115,32,160,200,197,204,208,160,155,155,8,8,4,80,80,80,4245
1070 DATA 80,155,157,157,217,61,53,54,218,61,53,55,155,166,49,244,7606
1080 DATA 48,236,48,240,50,52,155,217,89,111,117,114,32,118,97,109,5808
1090 DATA 101,155,89,111,117,114,32,115,116,114,101,101,116,32,97,100,4143
1100 DATA 100,114,101,115,115,155,89,111,117,114,32,99,105,116,121,44,4448
1110 DATA 32,115,116,97,116,101,32,90,73,80,155,155,228,53,236,51,7322
1120 DATA 48,155,238,233,160,27,157,160,193,196,196,210,197,211,211,197,6670
1130 DATA 211,160,210,197,205,193,201,206,201,206,199,160,27,157,160,155,3724
1140 DATA 156,28,18,154,135,178,178,189,153,32,200,197,204,208,32,69,9932
1150 DATA 128,105,116,32,32,211,212,193,210,212,32,80,114,105,110,116,8190
1160 DATA 32,32,207,208,212,201,207,206,95,176,32,83,107,105,112,155,9056
1170 DATA 35,189,16,155,135,48,48,189,4,70,155,29,4,80,80,80,1503
1180 DATA 80,155,28,18,135,178,63,189,8,8,150,89,218,155,16,155,6016
1190 DATA 8,150,89,22,84,69,88,84,80,82,79,46,77,65,88,155,2647
```

### Listing 2. FIND.MAX

```
1000 DATA 233,189,153,32,65,99,116,105,118,101,32,109,97,99,114,111,4634
1010 DATA 62,32,70,73,78,68,46,77,65,88,155,64,189,20,76,134,3333
1020 DATA 137,155,135,35,35,189,129,32,67,108,101,97,114,32,116,104,3772
1030 DATA 101,32,83,99,114,101,101,110,155,125,89,135,177,177,189,11,7637
1040 DATA 12,65,68,68,82,69,83,83,46,65,137,155,144,179,6,135,4786
1050 DATA 178,178,189,141,79,107,97,121,63,32,217,101,115,32,206,111,6694
1060 DATA 32,27,156,32,27,157,32,32,193,100,100,114,101,115,115,32,3664
1070 DATA 198,105,110,100,32,32,209,117,105,116,155,135,178,78,189,135,8790
1080 DATA 110,110,189,94,144,179,6,135,178,89,189,135,121,121,189,17,7834
1090 DATA 4,80,80,80,80,155,125,89,18,135,63,113,189,135,63,97,5136
1100 DATA 189,8,8,135,177,102,189,134,137,155,8,8,144,179,6,135,5356
1110 DATA 178,63,135,113,45,189,17,95,61,189,17,124,38,189,8,153,4331
1120 DATA 32,80,114,101,115,115,32,211,212,193,210,212,32,116,111,32,8144
1130 DATA 114,117,110,32,97,103,97,105,110,155,63,189,135,47,47,189,6201
1140 DATA 8,8,144,233,22,84,69,88,84,80,82,79,46,77,65,88,1794
1150 DATA 155,179,189,153,78,111,116,32,70,111,117,110,100,32,45,32,2248
1160 DATA 80,114,101,115,115,32,97,110,121,32,107,101,121,155,139,135,6343
1170 DATA 178,155,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1658
```

the address. Move cursor to first line of address before replying [Y] to the prompt or it will not delete the entire address to the paste buffer. You only need the [up] cursor but I included [down] in case you hit [up] too many times.

[A]ddress is to load a different address file from disk.

[F]ind is to enter a different Find string.

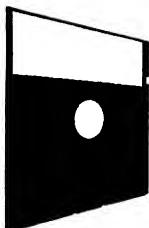
[Q]uit will re-load TEXTPRO.MAX if you do not find what you are looking for.

What have you accomplished? If you found your address, it is both on the screen and in the paste buffer. I normally then begin my letter and use [CONTROL]\_[R] to replace the address from the paste buffer to the editor when I reach that portion of the letter. I

also have a macro to type the heading of my letter and if I use that after FIND.MAX, it will automatically type everything (prompting input mode for the date) and add the address from the paste buffer at the right place in the letter.

### Final Comments

I hope you find these macros useful. I just used my ENV macro to address five letters to congressmen and the Federal Aviation Administration concerning a proposed change in aviation services. It was really quite efficient and no trouble at all to use. The hardest part is learning how to insert the envelope into the printer. The envelope is ejected once it is printed.



# BBS Express! Professional

## A Great Program for a Great Computer

Review by Craig S. Rothman

(Pro! SysOp #102)

Internet: craig@athena.mit.edu

*BBS Express! Professional* (aka *Pro!*) is one of the most flexible and full-featured 8-bit machine language programs ever written for the Atari 8-bit computer. I also happen to think that it's also one of the best, if not *the* best, Bulletin Board System (BBS) programs for our venerable Atari Classic computers. In this short piece, I will just scratch the surface of this powerful program. Hopefully, you will get a reasonable feel as to the versatility of *Pro!* But first a few basics.

### Why Telecommunicate?

Before I plunge into this review, let me say a few words about 8-bit support—it's what you make of it these days. Perhaps the best thing an 8-bitter can do is obtain a cheap modem and start calling BBSs (like ones using the software I'm reviewing here). If you're upset that you don't know what's going on in the Atari 8-bit world, modeming is the *best* way to talk to 8-biters all over heck; and you can also get *free* software for your computer, as well—all through a simple phone call! It's not difficult, and it's not even costly. To get started, used 300 baud direct connect Atari modems sell for an average cost of \$10, and it's money well spent! With your modem purchase, you can contact any number of famous Atarians, authors, and even SysOps! (like me!). For more info about modems and how to get your Atari 8 bit up and calling, contact me or your trusty CN 8-bit editor.

### Getting Started

I ordered my copy of *Pro!* a year ago and was promptly sent a basic two-disk package. One disk contained the main programs and menus, and the other disk contained the command (aka .CMD) files. The package came complete with everything I needed to set up a functioning BBS within a couple hours.

Figure 1 shows what my main menu looks like today. Mind you that the design of the user menus in *Pro!* are up to the SysOp. That means that there was a bit of planning and work involved that should be considered. *Pro!* is configurable!!! What does this mean? Easy! You get lots of decisions to make. Take the topic of message bases.

### Configuring Message Bases

*Pro!* allows you to do the following with respect to message bases:

#### The UnderDog BBS Exp. Pro [Upload Your Files Under [B]rowse!]

[A] ASCII/ATASCII	[B] Browse Files
[C] Call For Sysop	[D] D/L Locator
[F] Feedback	[G] GoodBye(Logoff)
[I] System Info	[L] Library Files
[N] System News	[O] Other BBS's
[P] Parameter Edit	[R] Read *E-Mail*
[S] Send *E-Mail*	[U] Userlog Search
[W] Last 50 Calls	[Y] Your Statistics
[=] GoTo Any Base	[*] Msg Base List
[Q] QuickScan!	[@] Edit Scan Lists
[K] Set High Msg #	[?] This Menu
[T] Time Info/Data	[M] FileMail
[X] Birthday Menu	[J] Jump to NEBULA!
[E] Enter GameRoom	[H] Top User Lists
[Z] Time Banking!	[ ] TBA!

Figure 1. Main Menu

- \* Set a topic for each message base
- \* Set how many messages the base can hold (1-250 messages max)
- \* Set an assigned limit (in bytes) for each message
- \* Control which users can post, delete, read, or edit messages in any base
- \* Lock out or allow ATASCII graphics for posting messages

The smallest message size is 362 bytes, the largest is a whopping 2,154 bytes! This allows even the most long-winded user his own space. Once these bases are created, they take up space on the drive. They do not get any larger or smaller (unless you redo them). It is always important to allocate space properly. Once any *Pro!* base reaches its message size limit, it will scroll off (delete) the oldest message and move each message back in line. Posting message 50 on a base set for 50 messages will cause message number 1 to delete. Message 2 will then change its number to become message number 1, creating room for new message 50, at the top of the message base.

### Networking Message Bases with *Pro!*

Message bases can be networked to other *Pro!* boards, and there are many boards that are actively linking at least *some* of the 24 subjects available within the Universal SysOp Federation Network

(USF\_Network). [Editor's Note: For an in-depth look at USF\_Network, see Dennis Trowsdale's "The Universal SysOp Federation" in the March '93 issue of CN-RR] Networking with *Pro!* is accomplished by use of an internal event scheduler in which you can specify what time your board is to call out to another board. (Most of us call out at night to save money on the phone bills!) The networking package for *Pro!* is not included with the two-disk package, but it doesn't cost very much to buy, and it's quite simple to install.

I call a main board that carries all 24 of the bases, and pick which ones I want to carry for my users. Networking is two way, and fully automatic. Each board creates a packet of new messages for the other board to pick up, and they both call each other for the exchanges. Once networking is set up, you do not have to touch the settings again, unless there are changes to make.

It's also a nice touch to add the International Atari Network (IAN) and see messages from boards in Europe on an 'old' Atari! [Editor's Note: See "The International Atari Network" by Jim Harris in the Dec '92/Jan '93 CN-RR] Networking with other boards, being a user, or a SysOp on a *Pro!* board all can help bring members of our Atari community more in contact with each other.

### Libraries of Files

In addition to being a communication resource for you and your users, *Pro!* also can be of invaluable use as a means to store and distribute non-copyrighted files. *Pro* is flexible in this regard, as well. You can name the file areas whatever you would like to call them and put your favorite files in their respective places. For instance, on my board, I have a file area named Applications, where I have Bob Puff's *BobTerm*. I have another file area I've created, called Graphics, where I keep ColorView, GRAPHICS 9, and other types of picture files available to users who want to take them for their collection. With *Pro!*, it's easy to Browse the file areas by name, and read the descriptions of the files that are in each section. Using *BobTerm* or another transfer capable terminal program, it's possible to both contribute a file for others (upload) or to take one for your own collection (download). Figure 2 shows what my File Sig menu looks like to give you an idea of what I'm talking about. Remember that, as a SysOp, you can customize these menus and spruce them up with inverse characters ATASCII graphics. [Editor's Note: Sorry, we weren't able to give you the full graphics effect of this, but just the basic information content. -RR]

As a *Pro!* user or *Pro!* SysOp, you'll be able to obtain new files for your Atari Classic and be able to pass them along to others. In effect, you become a resource for all Atarians in your area!

### The UNDERDOG BBS! [File Sig Commands]

- [B] Browse files with descriptions
- [C] Catalog files, 15 per page
- [N] New files since your last call
- [U] Upload a new file
- [/] Go to the next file area
- [=] Go to another file area
- [X] Exit to the main menu
- [R] Raw directory
- [+] Go to the next file area
- [–] Go to previous file area
- [Q] Verbose file list
- [Y] Y-batch download files

Figure 2. File Sig Men

### Multiple Terminal Emulations

Other than message and file support, there's still more to this program. If you get a call from an IBM PC user, *Pro!*'s auto-detect software will provide him color ANSI displays like magic. An ST owner can get color VT52 display support. Of course, we 8-bitters can see text in ATASCII—even ATASCII graphics cartoons! (Remember those!) *Pro!* also supports Tom Hunt's Color Graphics System (CGS). For anyone left out, of course there's straight ASCII Teletype (TTY), which works on all terminals and computers. *Pro!* will also adjust for 40/80 column screens, making it ideal for all users of all platforms that might call your BBS. In my first month of operation, many IBM callers had no idea that they were calling an Atari 8-bit computer. In fact, some callers even asked me where they could order the software to run *Pro!* themselves! Of course, if they weren't Atari 8-bitters, they were out of luck.

### Multi-Line Support

There are even more features! How about the ability to have more than one caller at a single time on your *Pro!* system? It's possible with *Multi-Line Pro!* With extra phone lines, a modem for each line and the CSS multiplexer, you can service up to eight callers simultaneously! Multi-Line support costs owners of other bulletin boards a lot more, but on your Atari 8-bit, it's available at a reasonable cost; and K-products provides not only the software, but also the technical support for you to make it happen.

### Customize to Your Heart's Content

A local user once asked me about installing a "This Day in History" file and a "Famous Birthday" list that would automatically display these items on my BBS each day. I called up the support board and found both programs in the large collection of public domain *Pro!* files. It took me about five minutes to in-

stall both programs on my board. A local IBM SysOp told me that his version of this feature cost him \$40 and his birthday and history data files were not up to date. My cost was just the phone call to the support board to download the file—something I find amazing! There are many features that can be added to a *Pro!* board to “customize” it to your needs. Here's a highly abbreviated list:

- \* An On-Line Store (which even takes orders!)
- \* Send a File to a Specific User (Filemail)
- \* Numerous On-Line games, like *Broadsides*, or *Colony*

All this for just the price of a phone call and a peek in K-products file collection.

### Pro! Support

Unlike many other 8-bit products, *Pro!* is still actively supported by its developer, K-Products. “K” even has two support BBS's that you can call up with your Atari, and modem. With a single call, you can order, ask questions, or tie into the *Pro!*-based USF\_Network or IAN to leave a message that will end up on other *Pro!* boards all over the US, Canada, and even Europe! All this on your Atari 8-bit computer, SpartaDOS 3.2d, (R-TIME 8 optional) and Hard Drive/Interface setup. (*Pro!* is not compatible with SpartaDOS X.) Version 4.0B will be available this Fall and it will support 7 “Help” directories for the various terminal modes available (ANSI, CGS, ATASCII, 40/80, etc.).

### In Closing

Trying to discuss the SysOp and user details of any BBS, let alone *Pro!* is like trying to condense the Encyclopedia Britannica into a one-page book report. The best way to get a true picture of *Pro!* is to call a *Pro!* board. Also, remember that being a SysOp isn't for everyone, and has some drawbacks. Networking phone calls aren't free. Hard drive space can get filled. Users send in files that must be checked and placed in their proper areas. (Etc, etc.—you get the idea. It can be time consuming, but if you are crazy enough (like I was) to put up a board, I suggest you try *BBS Express Professional!*. *Pro!* has the right features, manageability and it's actively supported by K-products.

### Supplier Information

*BBS Express Professional* is owned and copyrighted by K-products. The *Basic Pro!* package costs \$39.95. *Multi-Line Pro!* costs \$89.95. For more information write: K-products, P.O. Box 22122 A.M.F., Salt Lake City, UT 84120, or dial The Repair Shop at (801) 967-8738 with your modem.

To contact me, write: Craig S. Rothman, 7 Kara Ann Dr., Framingham, MA 01701, or call the Under-Dog BBS with your modem (508) 788-0643.

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# Carina

## Give Your 8-Bit Real Power

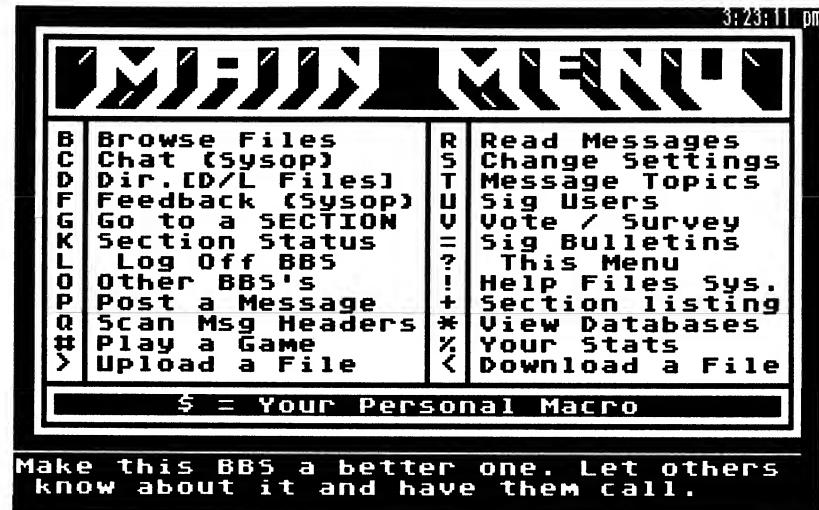
Review by Louis F. Trapani

**Power for All.** Whether you are a SysOp (System Operator) or a modem user, you will find power in the *Carina BBS* system (available through Shadow Software). When you log onto a *Carina* system, you will find the system divided into special sections or groups, much like you find on the larger pay services. It has all the features that you would expect from a BBS, and more. Plus, it is very easy to operate; and that goes from a user's point of view as well as the SysOps'.

**Special Interest Groups (SIGs).** As I mentioned, *Carina* is divided into special sections or Special Interest Groups (SIGs). In other words, you can log onto a *Carina* board and find forums on different topics. For example, if you are an Atari 8-bit user, you will probably want to go to the SIG for your computer. Once there, you can read and/or post messages, read the section bulletins, enter the 8-bit database, play some online games, take a survey, and, of course, upload and/or download files for your 8-bit computer. The same would be true for the Atari ST/TT computer, Macintosh, IBM, etc. It all depends on how the SysOp sets his board up. The system need not contain any computer-related SIGs. It may only have SIGs on topics such as games, science fiction, hobbies, whatever. Again, it is up to the SysOp. Many have a mixture of different SIGs—computer and non-computer related. You can visit just the SIGs you want, or all of them. One can also use the *Carina* user defined macro to read all new messages and browse all new files. Each SIG can have SigOps to help run the SIG at the discretion of the SysOp. More on this later.

From the SysOp's end, you can have up to 26 SIGs online. In each SIG, you can have up to 255 messages online at once. There is no maximum number of files, so it is as much as you can store on your system.

**SIG Message Bases.** Posting and reading messages could not be any easier. *Carina* allows you to thread messages backwards and forwards. It supports powerful search features. You can read only messages addressed to you, or after a certain date, or search message texts for a phrase, and more. Of course, most people read all the messages. The message bases have a special feature for 8-biters. They allow you to use ATASCII graphics right in the message! *Carina* also has some powerful editing features for messages. For example, you need not edit a message



line by line just to correct a word or two; it allows you to search for the word and replace it.

**SIG File Libraries.** Like the message bases, *Carina* offers some powerful features for files. A big advantage is how *Carina* searches for files. It uses keywords for each file—just like the many pay services out there. This way, even if you do not remember the file name at all, you can still search for the file by using its keyword. So, let's say you are looking for a text editor. You can do a search for all files with the keyword "editor." On some other BBS systems, you might have to know part of the filename in order to search for it by using a mask. Not *Carina*! It really gives the power to the users. Once the file is found, it can be viewed (looking inside a compressed file, or looking at screen resolution of a GIF picture, etc.) or the file can be downloaded. You can also mark the file and continue your search and then do a batch download (downloading several files at once). *Carina* supports most of the popular transfer protocols.

**More SIG Features.** In each SIG, you can vote or take a survey. There are online databases as well. Plus, each SIG allows the SysOp the option to add online games. For the Atari 8-bit callers, this means you can enjoy some of the ATASCII graphics orientated games that *Carina* offers. There are regular ASCII games for all computer platforms to enjoy as well. The SysOp can install special custom made modules. This could be anything from an online shopping mall to an online animation viewer with ATASCII graphics.

**Networking.** One of the most enjoyable aspects of *Carina* is its networking. It easily allows you to network with other *Carina* boards. There are many other boards out there and sharing information across the country is really advantageous. Many *Carina* boards are in the American Carina Exchange (ACE) Net and the International Carina Network (ICN) Net, which are really one big network. Users will meet others from all different locations and share

in the wealth of knowledge that everyone has to offer. The network is currently netting from the east coast to the west coast of the US and Canada. It includes such states as New York, California, Massachusetts, Oregon, Florida, and more. For SysOps, this network is free. It also allows *Carina* SysOps to enjoy the valuable online support for the *Carina* software. There is also a *PC Pursuit* (PCP) module for *Carina* that will allow the SysOp to take advantage of *PCP* and reduce their long distance phone costs.

**Friendliness and Feel.** As I mentioned, *Carina* is very user friendly. Online help is always available for users and SigOps/SysOps alike. You can stack your commands (give *Carina* several commands at once) and it will do them all for you. In fact, *Carina* even understands English to a certain degree. You could type, "Let me read all the new messages, and I want to browse all the new files." *Carina* will actually understand what you want to do and do it! There is also an option for the user to input his own commands and save them in his own personal macro. This way, the user can press one key to execute a custom string of commands.

The figure shows the main menu screen. Hopefully, this will give you a feel for how *Carina* looks from a user point of view (except for the small corner clock). This figure is actually an ATASCII screen shots done on my STe in ST Degas format (medium resolution).

*Carina* supports many different terminal emulations for users. It supports both 40 and 80 column displays. Full ATASCII graphics, VT-52 with color, ANSI, and others are also available. Tom Hunt's Color Graphics System (CGS) has been used with *Carina* as well.

**SysOp Power.** One of the strong points about *Carina* is that it offers many features for the SysOp as well the callers. Without further delay, I must mention that support from Shadow Software is, by far, one of the best offered for any piece of software. Shadow Software offers their 24-hour *Carina* Support BBS, which is also available via the network. David Hunt of Shadow Software, the current *Carina* programmer, will go all out to make sure you have no trouble setting up your system and keeping it running.

The software itself is a real pleasure to use for the system operator. First off, setting it up could not be easier. You will have the system up in no time. One of most breathtaking aspects of *Carina* is its SysOps window. It will allow your 8-bit to do multi-tasking right online. In other words, the SysOp window displays the current user's status and settings. That means you can validate a user or modify his status while he's online-without the user even knowing it! No complicated menus to go to; it's all there in a sizable window.

SysOps can assign certain users as SigOps (SIG Operators) if desired. A SigOp can help out with certain SIGs performing some of the work that the SysOp would have to

do. All the commands available are controlled by the SysOp.

*Carina* is an open-ended system. This not only means that the SysOp can add many different modules to it, but also that it is very easily modified. You are not locked out, as you would be with a pure machine language BBS, if you want to modify the program. It does have the speed of machine language via the Modem Operating Environment (MOE). Meanwhile, *Carina* allows you to modify the many stand alone BASIC modules. Thus, you can expand and customize the BBS to your liking. But this is only an option for you. You can run the *Carina* software without any modifications, so no programming knowledge is required.

**Requirements.** For callers, all that is required is a computer, a modem, a terminal program, and, of course, a phone line. For SysOps, you will need an Atari XL or XE computer, 500K or more storage capacity, SpartaDOS 2.3 or greater (MYDOS version in the works), a Hayes compatible modem, and it is recommended, though not required, to have the ICD R-Time 8 clock cartridge in order to keep accurate time and date.

**The Downside.** Many of the shortcomings of *Carina* have been addressed over time. There are always new versions being made available. One example is that sometimes (on a rare occasion) a system will get messages corrupted in the beginning of a message base. This is supposed to be resolved in the next version. Also, there is the limitation of only allowing a SysOp to assign one drive for files for each SIG. This establishes a limit of 16 megs of files per SIG.

**The Carina Conclusion.** Overall, *Carina* 2.5+ is one of the better BBS software programs out there. With version 3.0 coming soon, it will only get better. Over time, the software has been pretty much debugged. It has been used with many different configurations, including the Black Box, MIO, Multiplexor (MUX), Floppy Board, etc. It offers many options for the Sysop and callers alike. There are third party programs available for it, as well. All this makes *Carina* one powerful BBS system for any computer. Support is strong while the price is low.

**Availability.** *Carina* is available through Shadow Software for only \$50. If you are interested in purchasing the software, add \$5 for shipping and handling to: David Hunt, 8023 N. Berkeley, Box 2, Portland, OR 97203.

If you would like to see *Carina* for yourself, feel free to call my BBS, THE MACHINE at 516-764-5748 or call the *Carina* Support BBS (aka ACE of America) at 503-285-4417. Both are up 24 hours a day, networked, and will take up to 2400 baud.

# The STe TOS Switcher

*Enjoy the Best of Both Worlds!*

*Review by Ronald J. Hall*

## A Tale of Two TOSs

Painful decisions . . . life's just full of them. I suffered for weeks over my decision on whether or not to switch to TOS 2.06. I wanted all the advantages built into the newer operating system, but didn't want to lose compatibility with any of my older programs. I waited patiently and was ecstatic when the Code-Heads released a TOS switcher. Unfortunately, this switcher only worked with standard ST's and not my 1040 STe. Unwilling to wait, I finally upgraded to TOS 2.06 anyway (and you should, too; it's one of the slickest operating systems around for any system). Any STe with TOS 2.06 is so hip that it's a wonder you can see over its pelvis! I loved the features of the new desktop, but missed my older programs.

## Enter BEST Electronics

I had just about given up all hope when I heard that Best Electronics was importing a TOS switcher for the STe. Best Electronics is a mail-order company, located in San Jose, CA, that has been supporting the Atari community for quite some time. If you have a need for a hard-to-find item, then this is definitely one of the places to look (Yes, it is a shameless plug!). One phone call later confirmed this and my new STe TOS switcher was on its way.

Upon receipt, I immediately opened the package to find a very small board with just enough room for four sockets, two for my old TOS chips and two for the new TOS chips. Three red leads come off the board, two to a simple switch and one ending in a common alligator clip. The board itself appeared clean and solid while the leads are of more than sufficient length. The unit comes with a one page set of instructions (folded over to make two pages, front and back). While short, the instructions are clear and to the point. I'm all thumbs and have two left feet but had no trouble installing this unit in my machine.

## Installation? Piece of Cake!

The following is not meant to be an exhaustive guide on how to install this unit in your computer. It's just a hands-on-guide to let you know exactly what I had to do and is probably the same as what any average STe owner would have to face.

First of all, the top half of the case comes off so if your computer is still under warranty it will be voided. One note here, always make sure you unplug your machine (and all its peripherals). It seems silly to remind anyone about this but I have seen people do

some amazing things! Next, unplug your keyboard and set it aside. Remove the RF shielding from the SIMM slots and over the disk drive. Unplug the disk drive and remove it. Directly underneath the disk drive lies your objective, the TOS ROM sockets. Important safety tip #2 . . . make sure you haven't built up any static electricity. The safest course of action is to touch your power supply cover every so often or better yet, get a grounding strap from Radio Shack.

There are two TOS chips socketed on the motherboard. One is called "high" and the other "low." These are TOS versions 1.6 or 1.62 unless you upgraded like I did. These are removed (don't confuse which one is which; you might want to mark them) and placed in the appropriate sockets on the switcher board. These are clearly marked "old-high" and "old-low."

TOS 2.06 is not included with this kit so you have to purchase it separately. These new TOS chips are inserted in the sockets marked "new-high" and "new-low." If, by mistake, you put either set of TOS ROMs in the wrong sockets it won't hurt anything. Your STe will just refuse to boot up. There are two bridge type jumpers on the switcher board. One is marked 28-pin while the other is marked 32-pin. If your old TOS chips are of the 28-pin variety (like mine) you would cut the 32-pin jumper. If your old TOS chips were 32-pin then you would, of course, cut the 28-pin jumper. The TOS switcher has connecting pins on its bottom side that simply plug into the old TOS sockets on your STe motherboard. It's somewhat of a tight fit here but, with a little patience, you won't have any trouble. A word of caution, this board is compact, but there is only so much room in the STe case. If you are using or going to use any add-on boards or devices that also plug into the motherboard's ROM sockets, then I highly recommend you check with its manufacturer.

At this point you need to pick a place to mount the switch that lets you select TOS 1.6 or 2.06. I chose the right hand side of my 1040 STe almost directly out from the asterisk key on the numeric keypad. An alternative site is the right hand rear corner, directly behind the disk drive. The switch is convenient and unobtrusive when mounted in either position. It's just a matter of preference. You will have to drill a 6 mm hole to mount the switch. Metric conversions not being one of my strong

points, I held various drill bits up to the switch to judge the correct size.

Okay, now for the red lead that ends in the alligator clip. This is an extra option. If this lead is connected to C100 on the motherboard, then your Atari will do a warm reset when the TOS selector switch is changed. If it is not connected then the procedure is to hold reset in (on the back of your computer), then flick the TOS selector switch and let go of the reset button (warm boot). Either way, to get a full "cold" reset you will have to turn the computer off to switch between the TOS versions. Not all that much of a difference really and to connect to the C100 you have to remove the power supply and the rest of the RF shield. Also, it is recommended that you solder this connection. Now I don't know about anyone else, but the thoughts of soldering on my motherboard makes me extremely nervous. If you don't use the auto-reset option, you simply remove the lead from the TOS switcher board. Reassemble everything making sure that none of your leads are pinched or fouled, and you're ready to Rock!

### So, Does It Work?

Well, you've just spent the last 45 minutes putting the TOS switcher in your trusty 1040 STe, so how does it work? It works great. TOS 2.06 now saves desk information into a file called "newdesk.inf." Because TOS 1.60 and 1.62 still use the older "desktop.inf" version, you can save both files onto one disk or hard drive partition. Whichever TOS version you boot up in will read its own particular ".inf" file. It works really well. All those old titles that wouldn't work with TOS 2.06 are now available to me again. *Falcon* and *Flight of the Intruder* are two great flight simulators that are once again flying high. It's not just older titles, either. I recently purchased *The Chaos Engine* by the Bitmap Brothers and found that it wouldn't work with TOS 2.06. The manual says it's playtested up to the Mega STe but that must have been TOS 2.05! This is a great game and the STe TOS Switcher really came through for me!

### Difficulties?

Any problems? Well, the instructions warn of a jumper block next to the TOS chips on the motherboard marked W102, W103, and W104 that must be in the correct position (#3) for the Switcher to work. I've been told that in 95% of the STe computers they will be in the right position. Guess who had an STe belonging to that other 5%? Yes, once again, Murphy's Law (subclause c, paragraph 2) comes into play. I had to unsolder two of these jumpers and move them to the correct position. It wasn't hard, but, like I said, soldering on the motherboard makes me sooooo nervous, so if this happens to you and you don't feel comfortable with it, get someone who can. One other item

I might mention is that this switcher will only work with TOS 1.60 and higher. It seems that the combination of TOS 1.0 and 2.06 would be the best for maximum compatibility but I guess you can't have everything on the STe.

### And the Verdict IS . . .

The unit costs only \$49.95 and with TOS 2.06 chips selling for around \$55 to 60.00, the total cost to make your STe a dual personality machine is approximately \$110.00. That's actually pretty good. I got my TOS 2.06 chips from the CodeHeads because they include some great documentation and extra programs. I also purchased the *Newdesk Icon CPX* from Tbad computers (another shame-less plug!). This little CPX made by Software Development Systems is great for editing all those nifty TOS 2.06 icons.

So, in conclusion, if you want to enjoy all the wonders of TOS 2.06 but don't want to lose any compatibility with your old software library then I highly recommend the Amitar STe TOS Switcher from the U.K. With minimum installation effort and flawless operation, it does everything that it says it will, and that is the highest praise a product can receive.

[Amitar STe TOS Switcher, BEST Electronics, 2021 The Alameda Suite 290, San Jose, Ca 95126. Phone: (408) 243-6950.]

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# ***Mailing Manager ST***

***Features Without the Price?***

***Review by Steven Kiepe***

Are you unorganized? Do you have three or four different address books and multiple business cards and note pads filled with phone numbers, some current and some hopelessly out of date? Do you print club newsletters, fliers or labels for civic organizations, annual mass produced holiday season letters and the like? If the answer to any or all of these questions is in the affirmative, you are a strong candidate for a mailing manager program.

A mailing manager provides a single location in which to store a multitude of disparate names, addresses, phone numbers, birthdays, and other trivial information that suddenly becomes essential should you find yourself without it. Mailing managers are, by definition, supposed to provide the resource required to effortlessly perform such repetitive tasks as mass sorting of addresses by name or zip code, production of address labels, merging of this same information into pre-prepared documents (just like the junk mail you get every day), and maintenance of a master file of all of the above information to allow for data recall and update at a moment's notice. The very best mailing manager programs offer such capability although you still have to enter and update the data regularly.

*Mailing Manager ST* is one of several mailing manager entries in the Atari field with innovative features not found in other programs. The program does have a few blemishes that may preclude it from being the manager of choice for high-end users. Nevertheless, it is a welcome addition to the market and may be exactly what you are looking for.

## **A Quick Description**

*Mailing Manager ST* is a fast, GEM-based program for all *Atari ST/TT* computers. It runs in ST medium and high resolutions as well as TT medium and high resolutions. At this time, it does not operate with Moniterm monitors and compatibility with other video cards could not be verified. The program can be run in as little as one-half megabyte of RAM, although that greatly limits the number of records that may be used in a single file. It is packaged with one single-sided disk and a succinct 40-page manual. This review was based upon experiences with version 1.3.

The program installation is straightforward, requiring only registration at the opening menu. It is not copy protected, although it does have an encoded serial number that can be used to track the distribution of pirate copies. It operates well from a hard

drive but will also work from floppies. It comes with printer drivers for Epson FX and HP Laserjet II emulating printers. It, reportedly, will run on all versions of TOS including 1.0. For this review, the program was tested on a *Mega ST* with TOS 2.06 and a Fast Technology Turbo 25 accelerator.

## **Program Environment**

The program is initiated by double clicking on MAILMNGR.PRG. It immediately drops into a standard GEM window with the top menu bar listing headings of File, Records, Print, and Settings. There are very intuitive keyboard equivalents for most menu functions. In order to get a feel for the program (and also to ease set-up of printer definitions) the program includes a mailing list example consisting of fictitious individuals. I recommend that new users practice moving through the various functions with this list before starting work on their own records. This will allow you to avoid having to re-enter data if something should go wrong.

The File header offers several selections including options to open a data file (you can also set up a default file in the Settings menu), merge other files into the file you are currently working on, save the file or save and rename it, close the file (after first saving it), and abandon work. This focus on saving is important because the data file is manipulated entirely in RAM and is written to disk only when specifically directed to do so (although the program can be made to automatically save at desired intervals). This gives the program its incredible speed in sorting and manipulating the data. However, if you have just entered or edited 200 records and have a power failure before saving your work, you will be out of luck. Also, the use of RAM to hold all records in a data file will necessarily limit the number of records that can be used. Not to worry though, a 520 ST should have enough RAM available to hold at least 250 records, possibly increasing to 400-600 records in an appropriately configured system. In any case, the limit applies only to those records in a single data file.

## **Entering and Editing Records**

The Records menu header leads into the heart of the program. You have a choice of Viewing multiple records of a selected data file in a condensed viewing window, Adding new records, or Editing records. You can Search for, Mark, and Delete records through this menu as well. Both the Edit and Add selections bring up an essentially identical window allowing for the easy manipulation of record data (see figure).

Adding records allows you to build or expand your initial database in a methodical and very structured manner. You simply tab from field to field, entering the data required in the pre-set format. Some entries can be pre-filled with default data. All entries in the

record are added to the data file when "return" is selected. This then brings up a blank window in which you can add the next record's data. A newly-entered record is cross-checked against the main data file to determine if it is a duplicate record. If so, the option to save or delete it is offered.

The Edit window allows you to access and edit any record, aided by a powerful Search function and the ability to click on "buttons" that will advance you to the first record indexed on any given letter. Editing is easy; just change the data and then either hit [Return] or select the update switch on the window. Records can be sorted by first or last name. Capability to search on multiple text entries, such as several different states, towns, or zip codes, allows you to define certain areas of interest. Selecting the "menu" button returns you to the GEM menu. Again, until you save the file, the records remain altered only in the RAM copy.

### Unique Features

Each record allocates space to hold names, up to two lines of address information, City, State, and the full nine-digit zip code. There are two independent, non-word wrapping lines available for adding comments, and two areas for entry of phone numbers, which have several definitions including home, office, fax, and others. Additionally, there is a category called "Flags," which is one of the most useful features of the entire program.

Flags allows you to define the association of each record to the data file by seven independent, but not-mutually exclusive, categories defined by the user. Taken another way, some databases require you to have one data file for friends, another for work associates, a third for members of special interest groups, etc. With *Mailing Manager ST*, a user can maintain all records within a single data file and characterize their association with each of the sub-groups as have been pre-defined by the user. Because these Flags are non-exclusive, you can, for example, characterize a record as a friend, neighbor, and work associate. Then, if you should choose to print mailing labels or merge form letters for a group of friends, the program quickly identifies all individuals that you have characterized accordingly out of a master data file. Many other mail merge programs would require you to duplicate a record between each of several disparate data files in order to ensure the inclusion of all desired individuals.

Another nice feature of this program is the ability to add "private notes" to the text-containing lines of the database. These notes are not printed out when

you print labels or address books, mail merge or reports. Although the combination of data entry and private note cannot exceed the authorized length of the field in use, the standard 40 characters for most text fields is sufficient for general use. This feature is especially useful if your entered records have associated titles. For example, in my line of work I frequently address letters to "CDR and Mrs. John Smith, USN." With the addition of the private note function, I can add (for my purposes) "John and Evelyn" to the line. When I print the labels, they are properly addressed for a formal function. When I review my records, however, all necessary data is available to me.

The mailing manager has a powerful mail-merge function that is great for mass producing form letters and those annual holiday catch-all letters to distant relatives. Unfortunately, for all graphics-based word processor users (such as those requiring GDOS), files must be saved in ASCII format because special functions such as bold, underline, and others are not supported. For most non-GDOS word processors, special text features are supported. In any case, the mail-merge capabilities should be adequate for most home users.

### Program Shortfalls

For all of its power, *Mailing Manager ST* still runs a bit short in some significant areas. Of minor nuisance value is its inability to use a single Edit/Add window. Although the Edit and Add functions are visually (and almost functionally) identical, you must totally exit one area before you can enter the other. This is a problem when entering data files. Suppose, for example, that you are adding numerous new records to your data file and have just completed a single entry when you suddenly realize you made a mistake. Rather than allowing you to back up to that record (with the handy, although grayed out, move bar) you must exit the Enter Window, and enter the

Edit Window, find your record and then edit it. Then, you must leave the Edit Window and return to the Enter Window to add records and continue on. To me, this is a waste of effort and proved annoying when entering hundreds of records. A single window for both editing and adding records would be a nice solution.

Another shortcoming is the lack of a field in which to enter titles. Many commercial mailings are addressed by titles such as Dr., Mrs., CDR., or the equivalent. Although the data can be entered into the field so that it prints as desired and then put first names, etc., into a private note, this is not a satisfactory solution. There is no provision to print out the private notes, even if you wanted to keep them for use in an address book.

Utilizing the program with its GEM interface is occasionally awkward because of the inability to access the drop down menu while a GEM window is open. In the middle of editing records, I needed access to the desk accessories. I was required to close my GEM window, access the accessory menu, select my desk accessory, complete my task, then re-enter the Edit records window and re-find the point where I dropped off editing records. This is a minor nuisance, but a significant one, if you want to use *Steno* or other accessories to change your mail-merge source document while a GEM window is open.

#### Cumbersome Print Functions

Printing functions are probably the program's greatest Achilles' heel for most users. The program comes with templates for only a few of the most common labels and two printers. The manual states that *Mailing Manager* will operate with any parallel or serial printer, but this requires creation of a printer specific driver. Although the included drivers can be modified, and provisions are available to do so, it's not a task for the novice to undertake. Unfortunately, the manual is not as extensive in this area as a novice would likely require. I easily modified the supplied template for *Avery 5261* labels to accommodate the 5260 configuration, but many users may have difficulty making such changes.

A further problem is the lack of a pre-fabricated address book template. I personally don't care to power up my ST every time I need to look up a phone number. Hard copy reports work best for this purpose and they are much more transportable. There is a Print Report function, but it's nearly useless for such purposes. The work-around is to create an ASCII file with the desired layout for an address book and then mail-merge the records into it. For my LaserJet III compatible printer, the default printer setting is 60 lines. I used five lines to contain the desired fields for my home-made address book and a sixth line filled with asterisks to separate records. I then entered *Mailing Manager* and mail-merged to that file, dese-

lecting the formfeed after each record. My printer then printed ten records per page, without breaks in individual records.

#### Conclusions

Don't let the drawbacks mentioned above frighten you away from this program unless they directly affect a function you must have. Most other Atari mailing managers have their own limits in capability and features. This program has some very nice features, and is quite powerful. Its RAM-based operation is both boon and bane—fast, but potentially volatile if you don't save it periodically.

If you need a reasonably full-featured database to maintain large numbers of records on friends, acquaintances, and others, and print standard mailing labels or form letters for your club, small business or user group newsletter, this program may well be for you. It is under continual development and the drawbacks noted previously may be addressed in future versions. It is easy to set up and, if you are using one of the templated printers and labels, easy to print from and use.

[*Mailing Manager ST*, suggested retail price \$44.95. Fouch Software, 1823 W. 8th St., Erie, Pa 16505. (814)455-1294.]

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# Mouse Boot IV

The Incredible Mock-GEM Auto Booter  
Review by Paul Lefebvre

**Mouse Boot IV (MB4)** is another entry in the battle for startup control of your STe. **MB4** does what would be expected of a program in this genre: Allows complete control of all desk accessories and AUTO folder programs. Other types of files that it controls include (but are not limited to) desktop.inf (including newdesk.inf), auto starting of GEM applications (even with TOS 1.02), *MultiDesk* compatibility, GDOS assign.sys file control, plus the ability to add your own file types to control.

As its name would suggest, **MB4** does all its magic via the mouse, a trick not unlike Gribnif's *Xboot III*. Not having used *Xboot III*, I cannot make a comparison. I can say that **MB4** is extremely friendly, bug-free, and a pleasure to use. It has a unique 3-D look about it (especially when used in color—including TT medium).

## Cool Features

**MB4** has provisions for up to a maximum of 60 presets, any of which can be selected with a click of the mouse or a single keypress. If more than one monitor is used in a system, it allows for a default preset to be automatically selected when it detects the specified monitor in use. Separate programs are included to display a startup picture and to play a *Quartet* song. I haven't tried a song, but the picture display works great—it fades-out after the delay expires or the mouse is clicked.

**MB4** also has the ability to sort your auto folder, although it is not terribly quick. It has a built-in mouse accelerator, which is only used when **MB4** is run from the auto folder. One of **MB4**'s niftiest features is its ability to load your accessories from a folder. Tell **MB4** that all your accessories reside in the folder ACCS, and it will only copy the ones that you activate to the root directory. It keeps the root directory of my C: partition from looking cluttered.

Other neat things include a batch file processor that has provisions for file copying, moving, and all other expected commands that would be available in a command line interface. This can be very useful for setting up ramdisks.

## Summing It All Up—The Cool Side:

- \* Everyone who is serious about making the best use of his computer needs a boot control program. At \$15, **MB4** is one of the best values for your dollar.
- \* It has complete mouse control, lots of features and is simple to use.

- \* **MB4** is reportedly compatible with all Atari ST/STe/TT computers (unknown compatibility with the *Falcon*). I've been using it since January on my Mega STe with absolutely no problems noted.
- \* If you feel a need to try it, there is a demo version, (available on GENie and Delphi) that will randomly exclude one of the changes that were selected. */Mouse Boot 3 is available on CN #651.*  
-JW/

## Summing It All Up—The Lame Side:

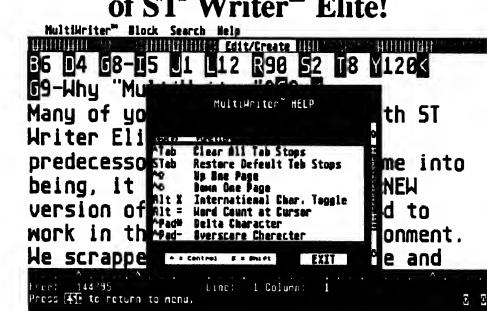
- \* The manual is only included on disk—no printed version.
- \* The author can only be contacted via U.S. mail, which is slow at best. I would prefer that he had an online account, also.

## Verdict: Strongly Recommended.

[Mouse Boot IV, SRL-systems, c/o Scott R. Lemmon, 2121 Gillis St., Palatka FL, 32177. Price: \$15.00]

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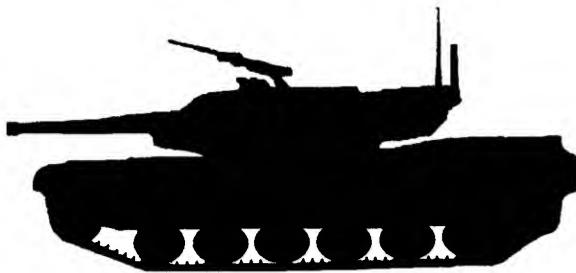
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# WAR IN THE GULF



Review by  
James  
Parker

## Man Your Tanks

The sound of the shells exploding was close to the tank, too close. My heart began to pound like a jackhammer. There wasn't much time. If I didn't finish them off fast, the platoon would be toast. Spinning the turret around, I tried to find the source of the barrage. At the same time, I activated my engine smoke to provide some cover and made for the tree line. Using my infra-red scope, I spotted a team of T-62 tanks at the edge of the forest, heading straight for me. I opened fire with everything I had, and within seconds, four of Iraq's aging tanks were burning piles of twisted metal. Things might have been a little more difficult had it been the newer T-72's. Still, it was too early to celebrate. My heart began to slow down, but my nerves were still on edge. Ordering my other three platoons to flank me along the tree line, I warily continued onto my main objective—to destroy a chemical weapons factory and warehouse in Az Zor.

*War in the Gulf* makes your palms sweat and your adrenalin flow; the only thing missing is the smell of diesel fuel and gunpowder. The look, feel, and control of your vehicles is all first rate, right down to the reloading times. Strike hard and fast, with no mistakes, to complete your objectives and help liberate Kuwait. This game is a lot of fun, but it is also hard. VERY hard.

## The Sequel

This game should really be called *Pacific Islands*, Part II. Except for the new scenarios, it is an exact duplicate. If you've finished

*Pacific Islands* and are looking for more challenging missions, this is what you've been waiting for. On the other hand, if you never could finish *Pacific Islands*, don't bother with *War in the Gulf*—it's much more demanding. This outstanding tank simulation allows you to control as many as 16 armored vehicles at once. Luckily for you, these are divided up into four platoons, each with four vehicles, which you manage as a group. The choice of vehicles is up to you, but you have limited funds from the Emir of Kuwait with which to buy and equip them, unless you can figure out how to embezzle more *grin*!

The year is 1995 and Iraq has invaded Kuwait again. You, the commander of Team Kuwait, have been ordered to begin an offensive to retake Kuwait. Since the massive troop draw downs of 1993–1994, the 1,000 U.S. troops in Kuwait have been funded exclusively by the Emir. You must follow his instructions to the letter if you want to receive future funding. You begin by selecting a battle area.

Depending on the region, you may have more than one way to approach an area. This can make a big difference, depending on where your objectives are, and where suitable cover is available. Next, you purchase and equip your team, from a choice of M-1 Abrams Tanks, M-113 Armored Personnel Carriers, M-2 Bradley Infantry Fighting Vehicles, and M-109 Improved Tow Vehicles (ITVs).

Your briefing is the next stop. You are shown a map, with the starting location of your team and all mission objectives clearly outlined. Depending on the scenario, you can also order up artillery support, smoke screens, and lay mine fields from here. After you have studied the briefing, it's time to start the offensive.

## Controlling Your Tanks

Keeping track of and controlling all four platoons simultaneously can be confusing at times. Still, the user interface is intuitive and easy to use. There are three screens that are accessed once the

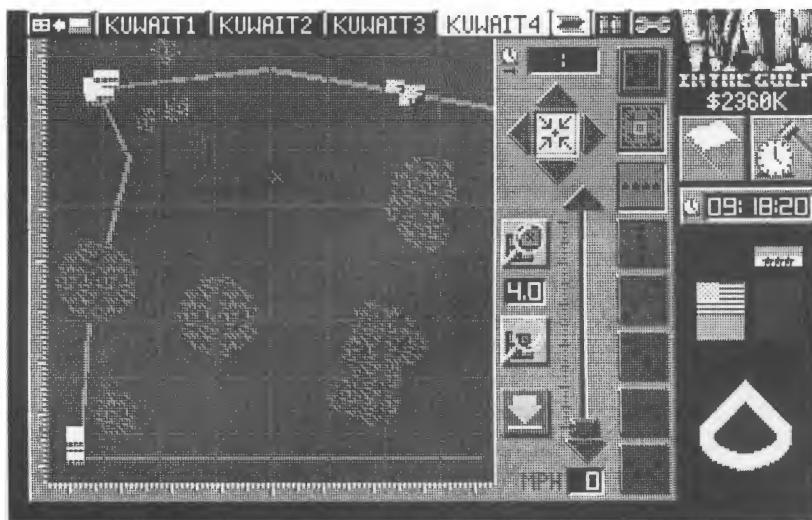


Figure 1

battle starts. You have the Map View (figure 1) that allows you to change the movement and formation of your platoon. From here you can also set the speed you wish your platoon to travel. Setting destinations is very easy, but it would have been nice to set multiple way points for each platoon. You click on where you want the platoon to go, then set the speed. The platoon takes off, following your instructions. You can scroll around on the map, and even zoom out to a full view of the battle area, or zoom in all the way to see each individual vehicle. The zoom comes in handy when you are trying to keep your platoon inside the tree line for cover, or trying to locate the source of enemy fire.

The Status View simply shows the status of each vehicle in the platoon, along with each crew's morale. When the platoon is suffering little damage, and scoring lots of hits, the morale is improved. Likewise, when you're getting wailed on, your morale takes a nose dive. Morale is important because it effects the ability of the platoon to attack the enemy accurately and effectively. After completing a scenario, you have the option to repair your vehicles and improve the morale of your men with some rest and relaxation (R&R). Of course, this takes money and time. This is where all aspects of the game become nicely woven together. Time is of the essence. The longer you take between battle areas, the more time Iraq will have to reinforce and strengthen its defensive lines. The more communication towers, satellite dishes, etc. you destroy, the better your chances of succeeding in future campaigns, due to the element of surprise. So, should you take the additional time to improve the morale of your troops? Do you use valuable ammunition and time destroying communication towers, or go for a quick victory? It might be dark if you do. Or if you need a daylight attack, you might have to waste

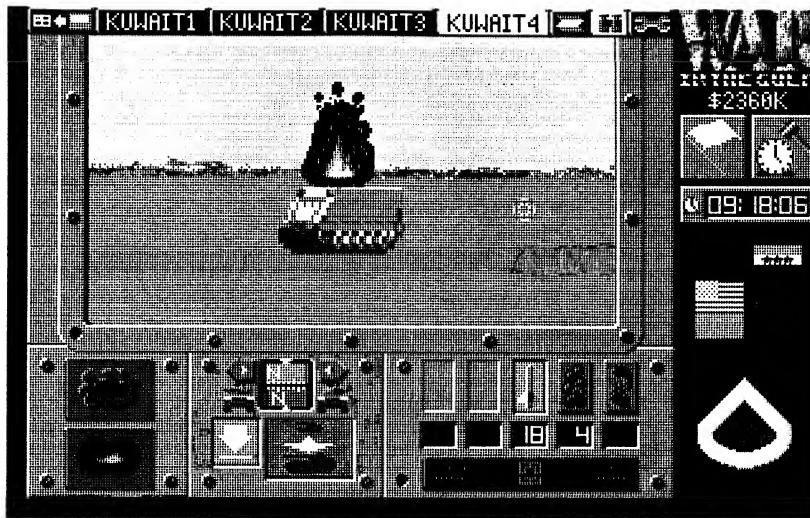


Figure 2

even more time waiting for the sun to come up. The decision is up to you.

Full screen mode (figure 2) gives you an "out of the turret" perspective of the battle. From here, you choose which weapon to use, rotate the turret, turn on your engine smoke, activate thermal imaging, use your laser range finder, and magnify your view. Weapons choice depends on the type of vehicles in your platoon. For instance, M-1 Tanks cannot carry TOW missiles, and M-2 Bradleys cannot carry HEAT or SABOT shells. Another factor to consider is that in order to fire a TOW missile, your platoon MUST be stationary. This is not always desirable, as a moving target is much harder to hit than a station-

ary one. Your thermal imaging, or infra-red, is essential to spot the enemy in the dark, or when covered by smoke. It also allows you to spot tanks and vehicles moving in the edge of the tree line. The laser range finder is used to lock on to a target, but will not maintain a lock if the target or you are moving. It's easiest to use when both are stationary. Although the laser range finder will improve your accuracy, it will not guarantee a hit.

All of the above screens can be accessed as a full screen, or as part of a Quadrant View (figure 3). This view divides the screen into four boxes, each representing a different platoon. You can also have different screens showing in each quadrant, if you want. This allows

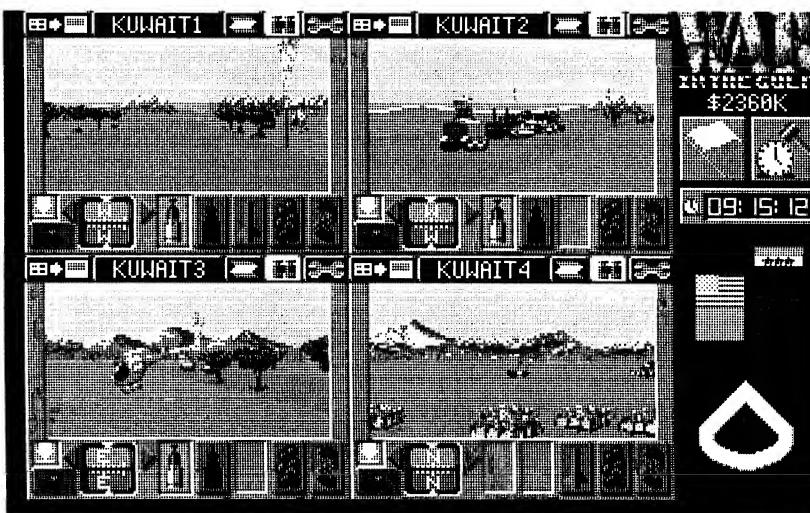


Figure 3

you to control, and attack, from all four platoons at once. This definitely takes some getting used to, as it's very easy to get the platoons confused when under heavy attack. Being able to smoothly control all four platoons simultaneously is critical. Most scenarios have more than one objective, and a time limit. You will have to divide your team up often, for example, sending one platoon to destroy a warehouse, and others to defend a city.

### Winning and Losing

If you somehow manage to complete all the objectives and still have at least ONE vehicle left, you have secured that area, and can proceed to the next. If your entire Team is destroyed or if even one of the objectives is not met, don't worry. You can try again. Even after completing five or six scenarios, and you lose one, you simply retry that specific one. You don't start all the way over. Another nice aspect of the game is that no scenario will take longer than 40 minutes to play. Save games are not possible during a scenario, but your player's file is updated when you successfully complete one. If you do manage to win a battle area, you may still want to try again, especially if your losses were heavy. The Emir will only finance you so much money, and going into the next battle with damaged or missing vehicles is not a good idea. In most simulations, your rank increases as your victories mount, and a tally of how many vehicles you've destroyed or lost is kept. In *War in the Gulf*, your rank is supposed to increase after every battle area is won. Mine hasn't, and I'm on the third area. So far, I've destroyed over 500 of

Iraq's armor, and only lost 11! This was not easy. I must have played the first scenario 20 times before hitting upon a winning strategy.

### Strategy and Other Means

You MUST have a solid plan in order to come out victorious. Your strategy had better be darn good if you want to keep losses to a minimum. Going in with guns blazing will only succeed in getting your tail shot off. On the other hand, if you use too much caution, your time could expire before you complete your objectives. You will have to balance stealth with outright brute force—it's a fine line to toe sometimes.

Here are some simple tips that have really improved my game.

First, *always* keep your engine smoke on, except during night battles (no use then, eh?). Iraq's thermal imaging isn't as good as ours, and a hidden tank is harder to hit. With the smoke on, you might have to use your thermal imaging, but that's OK. It's easier to spot moving tanks at a great distance or in a tree line with it than without, so get used to it.

Second, use the tree lines for cover. This hides your vehicles, until you let loose with a salvo of shells. When this happens, it's very likely the enemy will spot the flash from your barrel.

Third, spend time on the briefing screen to map out a plan, and

if it fails, try a different one. Unless you really goofed, your previous strategy might not have been the best option. Make sure you memorize any important locations you may need, because you won't be able to access the briefing again once the battle starts. Also be careful where you assign artillery support and mine fields. I've forgotten in the heat of battle and wandered right into my own mine field or artillery barrage. Not a good idea. Another bit of advice is when playing a scenario, remember where enemy units are, and where they appear. This will not change much, if at all, when you try again. And you *will* try again, and again.

And last, but by no means least, read the excellent manual, from cover to cover. It provides many tips. If your M-113's are getting blown away repeatedly, check out their armor thickness. It's real thin compared to the M-2's and M-1's. I never use M-113's or the ITV's—they never last long in a firefight.

### Embezzling Funds

Did you skip right to this part? Shame on you! You're right. The manual doesn't mention this at all. I figured a way to do this after I won the first Island but noticed my bank account was dangerously low. This requires the use of a disk editor, and I take no responsibility if you screw up your PLAYFILE.DAT file.

If you want to max out your bank account, repair your vehicle's damage, or improve your crew's morale it's not too hard to do. First, make a backup of your existing PLAYFILE.DAT and PLAYFILE.BAK files. If you totally screw it up, one of two things will happen. When booting, *War in the Gulf* will initialize all the records in

Desk	File	Sector	Move	Repair	Help
DiskDoctor: C:\GULF\PLAYFILE.DAT					
Sector #1 of 3					
0	1	2	3	4	5
6	7	8	9	10	11
12	13	14	15	16	17
18	19	20	21	22	23
24	25	26	27	28	29
30	31	32	33	34	35
36	37	38	39	40	41
42	43	44	45	46	47
48	49	50	51	52	53
54	55	56	57	58	59
60	61	62	63	64	65
66	67	68	69	70	71
72	73	74	75	76	77
78	79	80	81	82	83
84	85	86	87	88	89
90	91	92	93	94	95
96	97	98	99	100	101
102	103	104	105	106	107
108	109	110	111	112	113
114	115	116	117	118	119
120	121	122	123	124	125
126	127	128	129	130	131
132	133	134	135	136	137
138	139	140	141	142	143
144	145	146	147	148	149
150	151	152	153	154	155
156	157	158	159	160	161
162	163	164	165	166	167
168	169	170	171	172	173
174	175	176	177	178	179
180	181	182	183	184	185
186	187	188	189	190	191
192	193	194	195	196	197
198	199	200	201	202	203
204	205	206	207	208	209
210	211	212	213	214	215
216	217	218	219	220	221
222	223	224	225	226	227
228	229	230	231	232	233
234	235	236	237	238	239
240	241	242	243	244	245
246	247	248	249	250	251
252	253	254	255	256	257
258	259	260	261	262	263
264	265	266	267	268	269
270	271	272	273	274	275
276	277	278	279	280	281
282	283	284	285	286	287
288	289	290	291	292	293
294	295	296	297	298	299
298	299	300	301	302	303
304	305	306	307	308	309
310	311	312	313	314	315
316	317	318	319	320	321
322	323	324	325	326	327
328	329	330	331	332	333
334	335	336	337	338	339
340	341	342	343	344	345
346	347	348	349	350	351
352	353	354	355	356	357
358	359	360	361	362	363
364	365	366	367	368	369
370	371	372	373	374	375
376	377	378	379	380	381
382	383	384	385	386	387
388	389	390	391	392	393
394	395	396	397	398	399
398	399	400	401	402	403
404	405	406	407	408	409
410	411	412	413	414	415
416	417	418	419	420	421
422	423	424	425	426	427
428	429	430	431	432	433
434	435	436	437	438	439
440	441	442	443	444	445
446	447	448	449	450	451
452	453	454	455	456	457
458	459	460	461	462	463
464	465	466	467	468	469
470	471	472	473	474	475
476	477	478	479	480	481
482	483	484	485	486	487
488	489	490	491	492	493
494	495	496	497	498	499
498	499	500	501	502	503
504	505	506	507	508	509
510	FFFF	FFFF	FFFF	FFFF	FFFF

Figure 4

the file or *War in the Gulf* will dump you back to the desktop with or without a message and bombs. You'll know your PLAYFILE.DAT has been reinitialized when it asks you to choose the language, like you did the first time you booted.

Using a disk editor that allows you to open a specific file, load in the backup of your PLAYFILE.DAT. It should be three sectors long (1284 bytes), and if you haven't played yet, full of many zeros. The easiest to do is increase your bank account. If you are starting with a new Team Commander, look for the hexadecimal value 15. On empty records, you'll see the name Bannon (if viewing it in character mode), followed by a bunch of zeros, then the number 15 (figure 4). Six bytes after the number 15, you'll see four hexadecimal numbers with the value of FF. The four FF's designate what parts of the battle area have been won, and those that haven't. Change the 15 to something a little larger; remember that it's a hexadecimal number, not a decimal value. For example, entering 28 will give you over \$100,000,000 bucks! I haven't tested any upper limits on funding, but that should be enough and you can always up it again later. If you have already started a campaign, and want to boost an existing account, it's still really easy. Find the first byte of your commander's name, and count 27 bytes past it, counting the first letter of his name as 1. The 27th byte is your money. Bump it up and you're rolling in the bucks!

Now, if you want to increase your team's morale, or repair damage to your tanks without wasting time, it requires a little more digging. Here's what to look for. Each record is 160 bytes long. The beginning of the record starts 118 bytes before the first letter of your commander's name, and ends 42 bytes after. In my example, look at location 452, of sector 1 (figures 4 and 5). The value FF is the first byte of the record "ROCK," which ends in sector 2. The third and fourth byte of the record (locations 454 and 455) is the number of enemy vehicles you have destroyed. The fifth and sixth byte is how many you have lost (locations 456 and 457). Immediately after that is the start of your first platoon (location 458). Each vehicle's record is

Desk	File	Sector	Move	Repair	Help
DiskDoctor: C:\GULF\PLAYFILE.DAT					
Sector #2 of 3					
0	1	2	3	4	5
30	6	7	8	9	10
60	c	k	88	n	00
90	00	FF	00	00	00
120	00	00	00	00	00
150	00	FF	00	00	00
180	00	FF	00	00	00
210	00	00	00	00	00
240	00	00	00	00	00
270	00	00	00	00	00
300	00	00	00	00	00
330	00	00	00	00	00
360	00	00	00	00	00
390	00	00	00	00	00
420	00	00	00	00	00
450	00	00	00	00	00
480	00	00	00	00	00
510	00	00	00	00	00

Figure 5

seven bytes long. The first byte identifies the type of vehicle. An M-1 Abrams value is 01, an M-2 Bradley's 02, and so on. The next two bytes are the vehicle's damage and morale. To fully repair your vehicle and get your crews in top fighting shape, enter the value FF for both bytes. The next four bytes are what ammunition that vehicle currently has. First is HEAT shells, then SABOT shells, TOW missiles, and smoke grenades. A value of FF means that particular vehicle cannot carry that type of ammunition. If you use M2 Bradley's you know they can only carry 7 TOW missiles. But, while we're here, enter a 19 for each Bradley's TOW shell limit and you'll have plenty in your next battle. Be careful—too many and the game will show you as having none. Hexadecimal 19 (decimal 25) is more than enough and works fine. The next byte starts the second vehicle in the first platoon and so on, all the way up to the first byte of your commander's name. The only problem I had was when I used Disk Doctor; it would not correctly save the last sector. What would happen is it would tag on empty bytes at the end, to make it a full 3 sectors of 1,536 bytes, instead of the correct 1,284 bytes. This would cause *War in the Gulf* to initialize my PLAYFILE.DAT and erase all of my records. Good thing I had a backup!

### Wrap-Up

*War in the Gulf* is by Empire Software and comes on one double-sided disk that is not copy protected. It even includes an install program that will copy all of the files onto your hard disk. The only copy protection is a one time check where you must identify three vehicles. This is very easy, and after a few games you won't even need to consult the manual. It runs great on my Mega STE, and even works with Warp 9 and at 16mhz with the cache on. Included in the game is a large map of Kuwait and different pictures from the actual Gulf War. All in all, an excellent product, although it is nothing but a clone of *Pacific Islands*. Perhaps a better idea would have been to introduce "Mission Disks" at a cheaper price, instead of making people buy another full priced game. If you want an excellent tank sim, or want more challenge than *Pacific Islands*, check out *War in the Gulf*!

War in the Gulf

Empire Software (UK / European Release)

Phone (UK): 0268 541212

# ***tbxCAD***

*Champagne CAD at a Beer Price!*

By Bob Sims

When *Current Notes* asked me to review *tbxCAD*, I confessed that I was not a working CAD professional, just another dyed in the wool computer junkie (albeit, a little older than the majority of ST owners). But *CN's ST Editor* had dug deep into the depths of its archival dungeons (all magazine editors have dungeons, don't they?) and dusted off my previous CAD program review, to which I immediately replied "um, ah, um," OK.

So, here we are again. Ready to suffer the slings of outrageous (mis)fortune (more on this later).

## **The Basics**

Just as the manual introduction says, CAD is an acronym for Computer Aided Design. For those of you who don't know exactly what Computer Aided Design is, you can look up the definition in a dictionary, or you can read the introduction from the *tbxCad* manual. Although somewhat simplistic, it nonetheless gives you a basic description of the difference between CAD and a paint, or drawing, program.

## **Never Judge a Book by Its Cover**

When I first opened the cushioned mailer and took out the manual, my first thought was, "Gosh, this manual is kind of thin for a CAD manual." To add insult to injury, the manual was for an earlier version (1.0), along with an addendum for the current version 2.2. It did contain a tutorial, but there is an error in the tutorial (a simple office floor plan). With the addition of new commands, and changes to some of the existing command selections, I was somewhat doubtful with this shaky

beginning, particularly for a program with the subtitle on the manual reading "Champagne CAD at a beer price!" I thought to myself, "We'll see." But again, never judge a book by its cover, or in this case, never judge a program by the thickness (or thinness) of its manual, or by the quality of the tutorial.

## **Vital Statistics**

*tbxCAD* will run on any system configuration from a 520ST through TT030 in either medium or high resolution modes. *tbxCAD* will not presently run on Falcons, but that problem is currently being worked on. *tbxCAD* will work with a single-sided drive, and run with 512k of memory, but this would limit your CAD drawings. The *tbxCAD* program itself is approximately 308k in size, so a 512k machine would leave just over 200k of memory for your drawings, in addition to your favorite desk accessories or screen accelerators. How limiting your 512k memory will be is, of course, somewhat dependent upon how complex, or large, your designs will be. On my system, a MEGA/STe with four megabytes of RAM, I can have a maximum of 29,700 lines, 9,900 circles, 3,300 ellipses, 330 bezier entries (I've always wanted a couple hundred bezier, even as a child), 1,650 dimensions and 1,650 labels.

## **Layers**

You can have up to 254 layers (sort of like having a stack of 254 sheets of clear plastic), each with its own small piece of a complete drawing. For the targeted market that this package addresses, 254 layers are more than sufficient for all but the most extensive (and ex-

cruciating) projects. In addition, each layer can be individually selected, and you can make each layer visible or invisible, and active or inactive, on a layer by layer basis. This can be extremely useful, for example, if you were working on a floor plan of your spacious (aren't they all spacious?) multi-level home, and you want to arrange the furniture on the second floor master bedroom suite. By making the first floor layer invisible, you can move everything around without worrying which night table is being moved, the one in the first floor guest bedroom, or the one in the second floor master bedroom.

## **Tools**

*tbxCAD* supports all your required CAD entities: Line, Rectangle, Polygon, Arc, Circle, Ellipse, Bezier (oh, those bezier's), and Fillet (no, not steak or fish). Most of these entities support a "fast" function. This is *tbxCAD*'s reference to using the mouse to select an anchor point, such as a starting corner for rectangles, or center of a circle, and forming the entity by moving the mouse in a particular direction, until it reaches the required size (or shape). This makes life much easier when building up a complex design through the use of basic entities, such as circles and rectangles.

## **Specks**

Besides using the mouse to point and click your way through a design, *tbxCAD* also allows you to accurately define a specific location (point) on an entity. *tbxCAD* fondly refers to this specific location as a "Speck." The specific location functions are accessible by their own sub-menu by simply pressing the space bar whenever *tbxCAD* calls for a point to be entered, or whenever the Specific Locations menu bar appears at the top of the screen. The specific location function allows you to define a point at an intersection, end of entity, relative to a location and at

the last specific location (speck) used by a prior operation. In addition, you can use a digitized (rubber-banded) point, or an XY specific location for both absolute and relative coordinates. The manual indicates that you can use mixed coordinates (absolute and relative) at the same time when "specking." I haven't used this capability in my test drawings, but I have mixed End of Entity and Relative to Location Speck's, so I imagine the same would hold true for mixing absolute and relative XY Specks. You can also (Speck) Tangent to an Arc, Center of Entity, and On Entity, to round out the specific location tools.

### **Slice and Dice**

*tbxCAD* has numerous additional functions, such as, editing, copying, moving (including to a layer), rotating and mirroring at any angle, scaling (X, Y, or both) and trimming or breaking to intersection, length, corner, and, of course, to a specific location. You can label and hatch (vector crosshatching), select six different line styles, in 16 line thicknesses, with auto (and manual) dimensioning of length, radius, diameter, and angle. You can load and save complete drawings or blocks. The latter is useful in building libraries of commonly used "templates," such as furniture pieces, electronic symbols, or even landscaping items, like bushes and trees. You can save a drawing out in a .GEM METAFILE for use with GDOS, which I personally do not normally use.

One really valuable feature noted when loading a new drawing or when exiting results in *tbxCAD* informing you if your current drawing has not been saved, and asking you if you want to save it. If you doubt the value of this feature, try spending four hours, or better yet, 40 hours, working on a design for your next great invention (or new backyard deck), and forget to save your work before loading a

new drawing or quitting *tbxCAD*, and you will quickly (and painfully) realize just how valuable this feature is. I am speaking from experience here, folks!

Every program has to have its own special features, and *tbxCAD* has a few of its own, particularly the infinite drawing plane, arbitrary units and "Magic Menus."

### **I Can See for Miles**

Infinite drawing planes allow you to enter designs larger than the screen area. For example, that new wrap-around deck for your olympic size pool in the backyard fills the entire screen. You find out that your property line really extends 20 feet into what you thought was your neighbor's yard. Voila, just move your mouse to the desired edge of the screen, and the screen will move in the same direction and allow you to extend that deck by another 25 feet (sorry, neighbor). This allows you to keep expanding your drawing upwards, downwards, etc., to the maximum size allowable by your memory limitations. Of course, the larger and more complex your drawing becomes, the more your memory will be reduced. At some point in time, you are going to run out of drawing or out of memory, so let's keep that new fusion reactor design as compact as you can.

### **Was That Inches or Kilometers**

Arbitrary units can best be described as drawing units. *tbxCAD* does not recognize different units of measurement, such as inches or meters. Instead, dimensioning is handled in drawing units, and comes into play when you do dimensioning of entities in your design. Let's say you designed an island for your remodeled kitchen and the original dimensions were entered based on inches; but the custom cabinet maker is from the south of France, and requires the dimensions in centimeters. Hmm, big problem you think to yourself. Not a problem with *tbxCAD*'s arbitrary

units, because they are just that, arbitrary. You can use the Scale Dimensions function to input a multiplying factor for scaling the dimensions on the drawing. You just enter 2.54 for a scaling factor, and voila! centimeters magically replace your inches on your drawing dimensions. Remember, the dimensions are stored internally as drawing (arbitrary) units, but the dimensions are displayed after being multiplied by the scaling factor. You can just as easily change your dimensions back to inches by setting the scaling factor back to 1 after you print the drawing for your French cabinet builder.

### **Do You Believe in Magic**

When I first used *tbxCAD* and experienced "Magic Menus," I hated them. That is, until I needed to enter data in response to a sub-menu, and had to refer back to a portion of the drawing which just happened to be located under the pop-up sub-menu displayed right smack in the middle of my drawing (how rude). With a Magic Menu, I just move the mouse to the right, and the menu moves with it, allowing me to see the portion of the drawing that was previously hidden by the menu. To quote from the *tbxCAD* manual, "This menu is like no other previously seen on the Atari, in that moving the mouse will cause the menu to drag along with it." Well, I don't know if this is absolutely accurate, but then, who cares? All I know is that it sure came in handy when I needed it.

### **Extras on the Set**

*tbxCAD* includes three additional programs; two are auxiliary, the third is required. *tbxPRINT* handles all the print functions, and includes a driver for an Epson compatible dot matrix printer. All other printers must use the PRINT GDOS menu selection. This is a sore spot for me, and I feel, a demerit for *tbxCAD*. Now I could be wrong, mind you, but I

feel any CAD, drawing, or graphics program should support a Hewlett Packard Laserjet printer driver, minimally an HPII driver. With the HP Laserjet being a defacto standard (all HP's competitors support HP emulation) for high resolution printing, it should be included. ABC Solutions, the distributor for *tbxCAD*, informed me that HP support is on the "wish list" for future enhancement, so I am still hopeful. Of course, one can argue that you can use GDOS (or FONTGDOS) to print to the HP Laserjet, but this would only be valid if everyone had GDOS or FONTGDOS. In addition, my GDOS and FONTGDOS HP Laserjet driver bombs my system every time I try to use the *tbxPRINT* Print GDOS function. I don't know if it is the GDOS driver, but then again, I don't use GDOS for anything else. It would be interesting to use the new Speedo GDOS to see if the HP Laserjet driver works. In any case, the Epson driver works fine, but the 9-pin printers do not produce high quality drawings. I can't tell you how good the 24-pin printout is, because I do not have one, but I have seen fairly decent 24-pin printouts from other programs. The other approach is to save your drawing as a METAFILE (.GEM) and import it into *Pagestream* or another desktop publishing program, and produce high quality HP Laserjet printouts to your hearts content.

The other two programs, *tbxFONT*, and *tbxDXF*, provide the capability to edit existing fonts or create new ones to use in your drawings, and to convert DXF format files into a *tbxCAD* format. *tbxFONT* has no documentation, although the manual refers to a documentation file on the master disk. Additionally, the *tbxFONT* program has some quirks in it, such as when you enter the program, the "busy bee" mouse cursor remains until you select a function from the menu, and when you change the ASCII character for ed-

iting, the edit box does not change the displayed character, even though the data display shows the correct character that should be displayed in the edit box. I would stay away from using *tbxFONT* until the proper documentation and operation are forthcoming.

*tbxDXF* does work, but provides a limited import capability for other CAD programs that support the DXF file format, such as *AutoCAD*, *DynaCADD*, and *GFA Draft*, amongst others. It does not support different line styles and other special effects are not supported, but *tbxDXF* will import lines, polylines, circles, arcs, ellipses and text, in addition to processing 3D lines and 3D faces. You will still have to occasionally do some clean up of the imported drawing.

#### It's a Wrap

Overall, I was satisfied with *tbxCAD*, especially when you consider the target market that it addresses, and the associated inexpensiveness of this package. No, I would not recommend that you plan on opening an architectural firm based on the use of *tbxCAD*, but for the "average" (what is an average user, anyway) home "computerist," *tbxCAD* will fit the bill. Use it for that deck that you have been putting off (honey, you have to plan it all out before you build it), or for landscaping your yard, or for some quick free-lance drawing work. As far as "Champagne," let's just say it would be fairer to consider it a New York State sparkling wine; but nonetheless, it offers a very palatable experience.

*tbxENGINEERING* should revamp the manual so that the novice CAD user will not get confused with the tutorial or command set. In addition, some of the things an experienced CAD user would like to see would be better printer support, or at least a way to edit the included printer driver or to add new drivers. A utility similar to the *tbxDXF* program, to read CAD-3D format files would be very

desirable, based on the popularity of this format, not to mention that their competitors support this standard (Atari) format. Again, for the money, *tbxCAD* offers a great deal of flexibility and robustness for those of you looking to get into CAD without spending a large sum of money.

#### Outrageous (Mis)Fortune...

I want to point out to all the Atari CAD professionals out there (all six of them) that this review was done with the "target market" in mind (aka Joe user), and not for the dyed-in-the-wool CAD professional. If you want to complain to someone about my review, send your comments to me on Genie at B.SIMS3. Until next time.

#### *tbxCAD*

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GENIE: ABC.SOLN



## TRAK-BALLS

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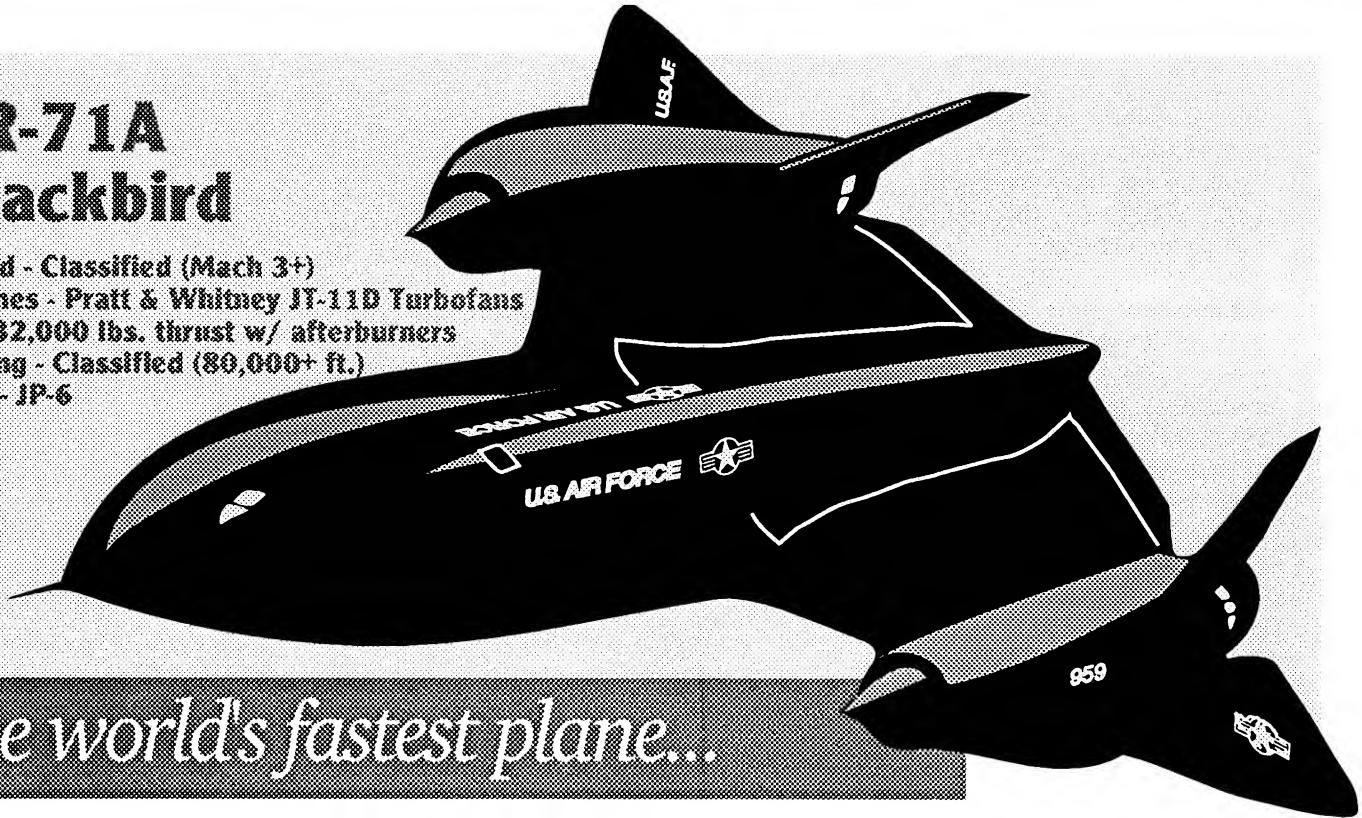
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# Still in Search of *Solutions*

Review by Matt Weilert

The Right Tool for Mathematics

When *Current Notes* invited me to review "*Solutions, the Right Tool for Mathematics*" by Elan Software of Quebec, I said to myself, "Wow—a chance to polish up my engineering math and get my name in print." What was that phrase, "Fools rush in where angels fear to tread"?

## Installation

Installation was my first challenge. On my first go-round, the install program bombed on the slightest provocation, forcing me to reboot with a clean system. Since this was a review, I spent 45 minutes or so testing different combinations of programs that it would install with. Naturally, products from the Codehead team provided no stumbling blocks; *UIS III* also passed. Don't try to use this with *XControl*, *FujiDesk*, *DMCFix* and possibly others I haven't tested. Install *Solutions* on your hard drive with a clean system to save the frustration. TT owners should install *Solutions* while the monitor is set at ST High. The second time I installed the program, the process took less than five minutes! No bombs.

## GDOS!!!

Ugh!!! Another hour and 15 minutes sorting out my old files to put the right assign.sys together. Now, some readers may wonder why it took so long. Like everyone else I know, I have less memory and hard disk space than I could fill. Even with a Syquest, you have to buy new platters. Don't listen to my wife, I am too organized; pay no attention to those piles on my desk. I understand *Speedo GDOS* is widely available now, which would've greatly relieved my anguish at having to use GDOS. The manual was produced with *Calamus SL*, so Elan Software knows of DMC. I'd suggest they upgrade (personal opinion) to using *Calamus* fonts and writing "ties" that would allow them to seamlessly integrate their efforts as a "*Calamus* module." *Speedo GDOS* will put True Typers on an even footing, I'm told; with *C-Font* from Compo, I guess you could use both *Calamus* and GDOS origin fonts.

The program's menus use custom characters in a *GDOS* font that Elan provides; so to get the full use of the software, you must install and use *GDOS* or *G+PLUS* (are there any other *GDOS* replacements out there?) and provide your "drive:path\GEMSYS" information to complete a successful installation. For those not up on *GDOS*, Doug Wheeler has written

probably the most widespread explanation of what it does and what it's for. Codehead documentation usually reprints it or includes it on disk. An author search on GENie would likely find it.

## Memory

*Solutions* and *Diablo.630* (if you're going to print anything) take up about 1.3 to 1.5 meg. Although designed to be installed on the hard drive, the installation manual specifies how to install *Solutions* on a floppy-only system. As I mentioned above, the crashes were with the installation program and not with *Solutions*. Switching to mono, which requires less RAM in which to operate, seems to have solved that one. This copy of *Solutions* has been tested on a TT with TOS 3.06 and an STe with TOS 1.06. It works fine in all resolutions we could test (neither I nor Gary has a TTM195 or Moniterm so we didn't test 1280x960, or TThigh), with either of these TOS versions.

## Field Trials

In use, *Solutions* was unsatisfying to me. The program was neither intuitive nor easily supported by the manual. Working through the program's interface provided the information necessary to get the results displayed in this review's screenshots only after thumbing around the manual. I became very frustrated at times at the stack results from my input screen entries since there's no context sensitive help. The manual almost appears **written for the staff** at Elan as opposed to the user, as there's no clear introduction of how terms tie together. No parenthetical pointers show the way to details of terms mentioned in a paragraph that haven't been dealt with yet. In the statement on page 3, "Since the documentation focuses on the use of '*Solutions*', it assumes that you are already familiar with mathematics." In my opinion, the word "focuses" should be replaced with something stronger. I've uncovered a few significant assumptions within that statement:

- a) People are going to *thoroughly* read the manual (ever).
- b) People are going to *thoroughly* read the manual before attempting to use the program.
- c) The different meanings and actions assigned to fonts used in the manual are apparent without explanation.
- d) People are willing to flip back and forth, piecing together the information required to use the program.

I spent a total of around 35-40 hours using the program for various tasks and, although I have an Engineering degree and decades of experience with Reverse Polish Notation (a method of data entry that

reduces the number of keystrokes over standard algebraic notation), I was not able to duplicate any but the simplest screen shots without bouncing all over the manual and testing different combinations.

In use, once over the data entry hurdles, *Solutions* compares favorably in execution speed and function scope (how many different things it can do) to the Hewlett-Packard HP-15C handheld scientific/engineering calculator. Better still, *Solutions* provides the power to graph and print your work! Watch out, lest ye rejoice too fast: figure 1 below shows my experiences with plotting a cubic equation.

### Lacks Tutorial

The lack of substantial tutorial examples is the largest share of my decision to give *Solutions* a thumbs down. A program this powerful *needs*, at the very least, a brief walk-through of its various strengths and an honest appraisal of its weaknesses. Hewlett-Packard manuals are world-class in this regard. HP aims their machines at the advanced market yet devotes the bulk of their manuals to examples of how to best apply the range of features they've collected in the model you've bought.

Subtlety is not an asset I'd seek in software, so when *Solutions* masks its considerable strength under a terrible manual, the "thousands of hours and 80,000 lines of code" (from the manual's introduction) can get dismissed pretty quickly. This is a pity because Paul Dube and team have put in a lot of attention to reflecting system status in the various cursors. The GDOS "insert cursors" are left-arrows of varying line thicknesses. Another manual shortcoming is displayed in the popup display of Alt-key combinations. These combinations equate to specialized mathematics characters and can be only found under the Help

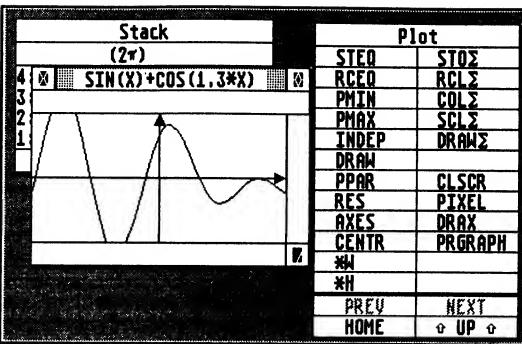


Figure 2

Menu bar, as the table isn't reproduced anywhere in the manual that I could find.

On pages 30-31 of the manual is a "tutorial" (grin) of "plotting" a simple function using sine, cosine and the variable "x." Typing  $\sin(x) + \cos(1.3*x)$  will result in an error message, because the function names must be in all caps, unlike a product

like *Foxpro*, which is case-insensitive. Now that's not a big deal; it just took me four tries to remember! Here's the manual steps given, "First enter the equation on the stack, and execute STEQ." The paragraph doesn't tell you that STEQ is in the "Solve" Class and discussed later on p. 38. Ok, so we read the manual thoroughly and have total recall, right? Then we'll also know that "you just have to execute DRAW" means move to the "class" menu bar and choose PLOT, then, from the submenu, choose DRAW (figure 2). To put icing on the cake, the program crashed when I clicked on PRGRAPH to print the example plot, five of six times! Sheesh! After some of these crashes, I checked memory: over 3 meg free.

### Another Example: Complex Numbers

Since I'd already learned the four rules above (read the manual; read it again; type in things EXACTLY as the manual presents them; case-sensitive is critical) and was able to piece together bits and pieces to form in my head what I'm trying to do, complex operations handling went smoother. In figure 3 you can see the "efficient data entry technique, no closing bracket is required." Nice touch! Item two in Figure 3 shows both ways of executing the command "real to complex," and item three shows another mark of thoughtful programming: notice the ellipses (those three dots in the lower right corner). This indicates there's more in the line than the current window size displays! Item four shows the full entry.

### Example: Complex Operation

Evaluate the expression

$z_{\{sub1\}}/z_{\{sub2\}}+z_{\{sub3\}}$ ,

where  $z_{\{sub1\}}=23+13i$ ,  $z_{\{sub2\}}=-2+i$ , and  $z_{\{sub3\}}=4-3i$ .

Complex numbers are represented in *Solutions* as ordered pairs, that is, two numbers of the form (X,Y). (All caps remember, because we can enter the equation either symbolically, with the z's or with the numbers. I'll show the numbers.) X, the first number, represents the "real" component and Y, the second number, indicates the "imaginary"

### Some features aren't intuitive:

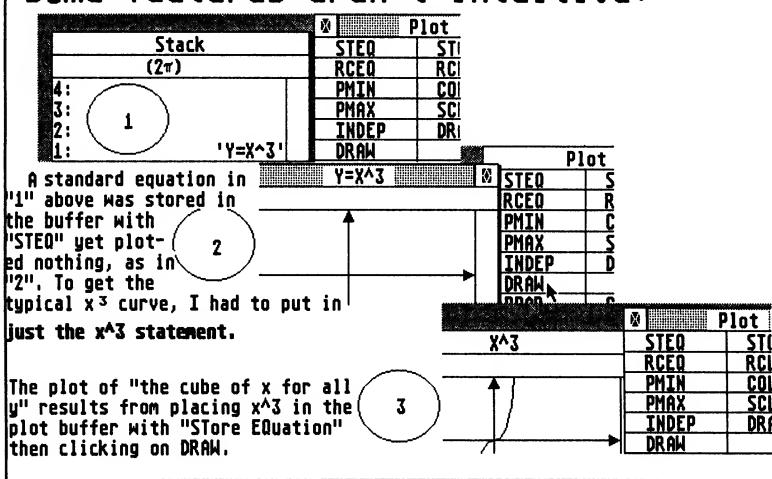


Figure 1

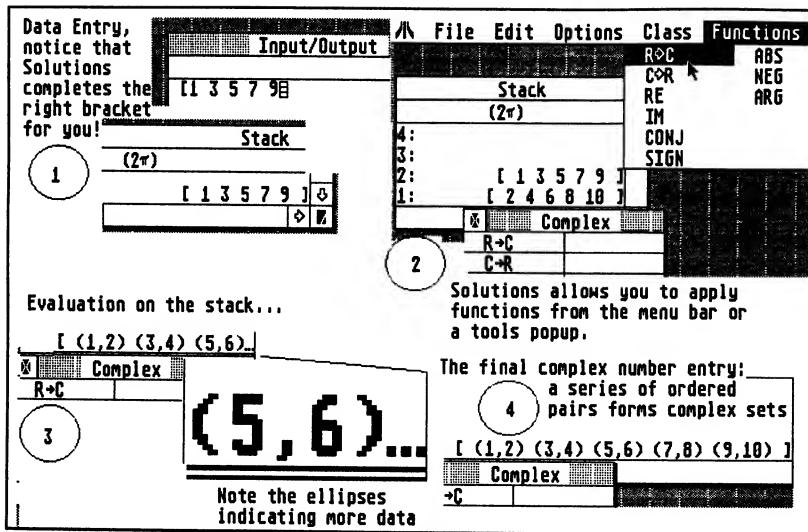


Figure 3

component. Imaginary numbers are those which are multiples of the square root of negative one.

It does no good, Virginia, to ask why anyone would want such a thing. :-) Much of this math notation stuff was decided several hundred years ago. As an aside, one of the best introductions into mathematics is the series of books Harold Jacobs wrote, published by W.H. Freeman & Co. But, I digress.

### Integration Attempts

While the program features both numerical and symbolic integration, (the limit of the sum of areas under a curve) and differentiation, (What makes chocolate not vanilla? Gotcha!) as well as Taylor series, I wasn't able to endure the machinations to get the stack to work on "real world" problems. In picking a very easy example, I thought I'd just show that it could be done and wrap this review up. No, no Nanette!

The integral of the square of the sine as a function of x where x ranges from 0 to pi is exactly one half pi. That is, if you can get the manual to tell you how to enter the commands and data to process your equation! My three attempts are described by figure 4. In item 1, I entered the closest resemblance to what the manual section "example" gave. Now, this is nigh on to a case of lighting a match in a dark, windy room. It might illuminate you for a second; just don't try to go too far in one session! As the presence of "der" or partial differentiation label on the first line of the stack shows, the differential didn't belong in this example. The second stack entry apparently was right, just 0 and pi framed by brackets. Stack line 3 shows the error allowed, .001. Well, still an error message by leaving the differential off! The third time was not quite a charm, but it wasn't

boring either. I tried to manually square the  $\sin(x)$  since the function was flaking out. It looked like we were about to win when it locked up, forcing a reboot.

In trying to portray the software in the best possible light, I spent way, way more time than I would've if this had been my copy of *Solutions*. I could review my college notes and do much of this long-hand quicker than the current manual's learning curve. I believe the statement on page 3 of the manual indicates Elan Software strategy: "Since the documentation focuses on the use of 'Solutions', it assumes that you are already familiar with mathematics." In any market, consumers need to be educated on technical products. In a market as small as the Atari platform appears, such a lack of focus on the consumer could be suicidal. I sincerely hope future versions of this powerful package include:

a) *Speedo* and/or *Calamus* fonts; they could make the effort to avail themselves of DMC Publishing in Toronto and include CFN font capability and CVD/CVG drivers for graph import/export.

b) Many, many more tutorial examples, with more screen shots of actual entries.

c) A collected explanation (all in one place) of the typeface and quotation mark usage meanings.

### Conclusions

*Solutions* reminds me of an early version of *Calamus* without the icons and upper-right-hand corner function labels. The learning curve on both programs was tremendous, and I hope that those who've invested the energy to climb the mental mountain have found their solutions at the top.

[*Solutions*, Elan Software, 550 Boul. Charest Est., P.O. Box 30232, Quebec, G1K 8Y2, Canada. Phone (418) 683-9189; Fax (418) 692-0565.]

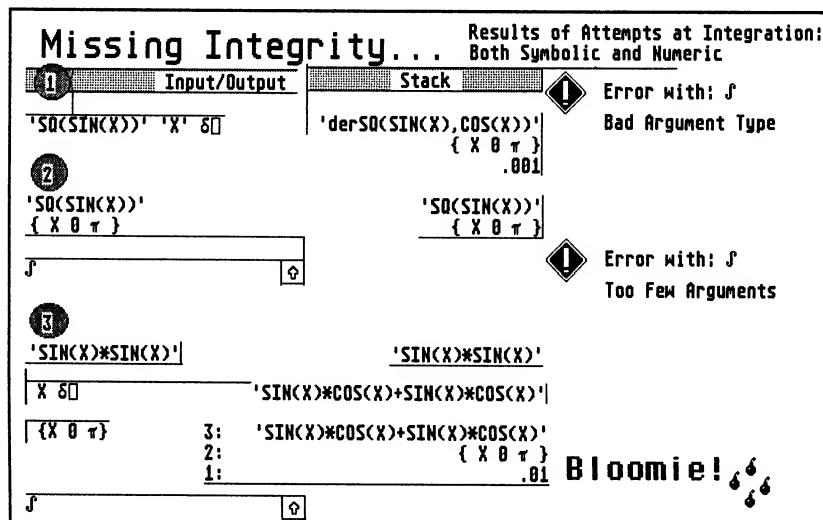


Figure 4

# The Koshan Conspiracy

Bureau of Astral Trouble-shooters, Part 99

Review by Alfred Giovetti

One of the most enjoyable genres in science fiction is the Cyberpunk of *Blade Runner*, *Circuit's Edge*, and *Lawnmower Man*. *Bureau of Astral Trouble-shooters I* involved an underworld conspiracy to monopolize elements essential to space travel on a seedy, futuristic planet. *Koshan* is another foray into another seedy planet to wrest from Koshan Corporation's monopolistic control another essential mineral, Echiatone 21.

*Koshan* improves on the innovative BAT interface, retaining its advantages while making it larger, more playable, and more flexible. A fast start allows for the selection from one of several pre-rolled BAT agents, or for the creation of an agent from several body types. The selected body type is trained in seven skill areas, which also increase the six standard role-playing characteristics of strength, intelligence, charisma, perception, vitality, and reflexes. Other characteristics available to the game player and character creation include experience, life percentage, and progression. Progression is an innovative statistic that shows the amount of the positive progression toward solving the game.

Koshan Corporation is found on the planet of Shedishan. *Koshan* begins with the main character, Jehan Manasis, arriving at the Roma II Spaceport on the only Shedishan continent, Europa, with the immediate goal of locating Sylvia Hadford in her room at Montoue Manoir. Sylvia, your contact on Shedishan, will give you a credit card and other essential tools that you will need to start the game.

Shedishan is composed of three races: Shedish, Human, and Ilyen. The humans are a part of a Roman-based people who make up the upper echelons of the ruling class in a loose but unequal partnership with the Shedish, an intelligent simian race. The Ilyen, a less intelligent simian race, are the non-citizen and slave class of the society.

*Koshan* uses an interactive mouse and keyboard interface. The graphic-sensitive mouse cursor changes to an arrow when placed over an entrance, road, or the edges of the first-person perspective display screen. This mouse cursor changes to a mouth when placed over people, allowing you to converse with the planet inhabitants. Various function and hot keys, and other mouse cursors, allow you to access the game functions of save, pause, quit, load, advance time, and others.

The game is composed of a series of eight missions that must be completed in approximately eight weeks. Despite this time constraint, the feel of *Koshan* is somewhat relaxed. Jehan is more pressed to eat, drink, and acquire money than he is in a race against time. He has time to play video games, explore the city, and sample the local pubs and clubs. The city is composed of six sectors. Learning the locations of the many types of stores, bars, residences, businesses, industries, and government buildings is a major part of the game.

As you move about the game, various windows open up, giving a set of as many as four first-person perspective displays on the computer screen at one time, which makes movement among these screens instantaneous. Many of the locations of the game can only be reached by one of the five simulators in the game. Jehan can choose to pilot these simplistic vehicles or hire a taxi driver to do so. Either way, you get to see ray-traced simulator graphics in the front view screen.

The simulators are simply composed of throttle and pilot stick, which can be controlled by joystick, mouse, and keyboard. The features of the flight simulator are very crude but impressive in the amount of controls to which you do have access, such as first-person perspective, satellite view, and a 360-degree panning view first-person perspective from the vehicle interior. The game allows in-flight switching from joystick to mouse control. The RAEDA simulator is a flight-simulator with space flight capacity, which allows for air-to-air combat.

Combat is divided into two optional types: strategy and action. All combat begins with a tactical phase where pairing and positioning of enemy and friendly combatants is made. In strategy combat, friendlies are shown on the left of the screen and enemies on the right. You have access to the inventory to connect force fields and choose weapons, and you can return to the tactical phase to reposition team members. The action combat replaces the center of the screen with an infra-red display with input-controlled weapon cross hairs. Bar graphs display supplies, shield level, target, and player health. Both types of combat have access to the flee button. Fighting can be in the streets or a gladiatorial event in the arena.

Aside from amassing great quantities of money, high quality weapons, armor, and devices, the hero can recruit up to four other characters for a total of five in your group or party. Once recruited, party members can be given orders to find an object, investigate a subject, meet with the team leader, talk with the team leader, take and give objects, and leave the team. All non-player characters in the game have a job, a residence, and a daily schedule of sleeping, working, eating, and recreation. Every character has a memory and its own morphology. The memory is uniquely dynamic, with the ability to learn, forget, exchange, and transmit knowledge.

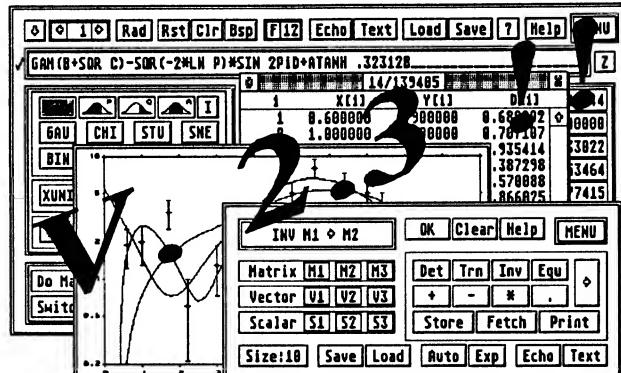
A full ten pages in the player manual is devoted to the Bidirectional Organic Bioputer (B.O.B.). BOB has the capacity to give statistics on all body functions and characteristics, control the five cybernetic implants, act as a miniature computer to translate foreign languages, and warn Jehan about problems in his body and in the external environment. BOB can be programmed by positioning the programming language icon on the two-dimensional computer board. The most effective programs involve translating Shedish, warning about aggressive non-player characters, and warning when Jehan is hungry, thirsty, or tired.

*Koshan* is a wide open treasure hunt and trading game, with many different solutions to the puzzles and a very large world to explore and enjoy. The interface is much improved from *BAT* and has eliminated many user complaints about the game interface. Several improvements to the game have been made, such as allowing recruitment of intelligent companions who can be given quests of their own. The flight simulators are skeletal versions of those programs entirely devoted to that genre. Although its real-time combat, starvation, lack of automapping, and wide open design may conflict with some game players' style preferences, *Koshan* is a high quality product which will appeal to many role-playing game enthusiasts.

Requires MS DOS 3.2 or greater, IBM compatible 286 12 MHz or faster, 9 to 14 Megabytes of Hard Disk Storage, .25 or 3.5 inch high density floppy drive, 1 Megabyte of RAM, MCGA or VGA, 540 Megabytes of free RAM, mouse. I recommend 386 or 25MHz faster, 2 megabyte RAM disk, MS DOS 5.0 or higher. Sound: Soundblaster and compatibles, Ad Lib, Pro Audio (+ and 16). Suggested Retail Price: \$49.95. Conversions: Atari ST and Amiga. Atari Version: Can use two disk drives or hard drives and only requires 512 Kb of RAM. Copy Protection: Key Word from Manual.

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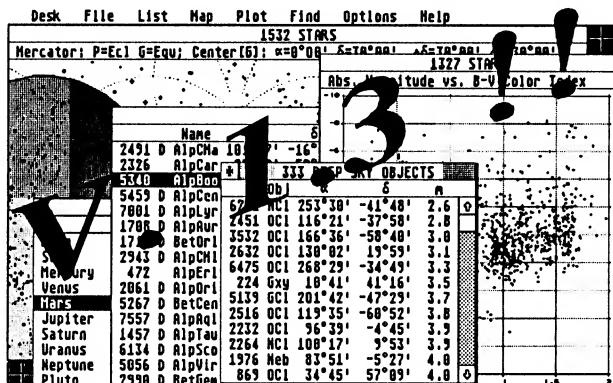


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Listed here is the first showing of the "new" Current Notes ST Library. All of the disks listed below are double-sided; all (but for a few exceptions) of the programs are compressed (LZH); duplicate programs and early versions of programs have been eliminated. The year indicated by each disk gives an approximation of the time span when these programs were first made available in the CN library. Disks are still only **\$4 each** (\$10 for \$35). Order from CN Library, 122 N Johnson Rd, Sterling VA 20164. For quickest service, call (703) 450-4761 and order using your MC/VISA card.

## UTILITY PROGRAMS

**#820: Utility No. 24** (1993) Anetmidi, Edhak 2.36 patch, Empus4 (Tempus2 patch), Expand-o-matic 1.5, Gogo->st 5.0, Jondos 1.07 (cli), Lzharts! (lzh/arc shell), Maxikill, Megade-pack, Moire (screen saver), Nosey ii, Picswitch 1.01, Rde 2 (reset-proof Ramdisk), Renameit 1.3, Slim Laser Printer Driver (9/92), Super Boot 8.1, Syquest (backup/restore), Timedrv 3 (corner Clock). [Replaces #800d, #820d.]

**#799: Utility No. 23** (1993) Applier, Autofile Mover, Auto Cpu, Bak\_Del (backup/delete), Blitzschnell 1.44 (hard drive defragmenter), Master Cache 2.75, Bermuda Clock 1.1, CWAC 2.03, DL II 0.24, (checkdisk, unerase, diskedit), Fast-diskcheck 1.3, Fat Cache 1.0, Fat Speed, File Catalog 1.2, Find File, Integrity, Lhx, Serial Fix 2.0, Sortie 1.2, ST Zip 2.2, Tlc Format 3. [Replaces #794d, #799d.]

**#792: Utility No. 22** (1993) 7-UP (word processor), IMG Viewer, JC Label, JC View, Make\*a\*Date 2.5, Morse Code Generator 1.3, Photochrome 3.0, Serial Mouse Manager 1.0b, Smooth Draw 2.0, Tlc Book 3. [Replaces #791d, #792d, #793d.]

**#782: Utility No. 21** (1993) Alice 1.5 (Another Little C Editor), Dips, Edm Shell 2.24, Easy Base, Cypher, Finder, Hd Free, Hd Info 1.0, Manualizer, Readboot, Rubricks, Screen Dump 1.5, Sebra High-res Mono Emulator, Sysinfo 1.3, Teradesk 1.24, Tomshell, Winx 2.0. [Replaces #769d, #780d, #782.]

**#770: Utility No. 20** (1993) Fleabyte Accessories (Simplex 2.1, Full Function 1.4, Significant Figures 1.3, Basic Natural Science 1.4), AutoRaise, FirstGraph demo, Gsedit40 (Dec's edit editor), Kepco Edit 2.2, Stevie Editor 3.95, Tsedit (TOS version of Dec's editor). [Replaces #448, #559, #764, #770.]

**#766: Utility No. 19** (1992) Reset 1.1, Bootkill, Calendar 6.2, Calshow 6.2a, Easy-Go (program launcher), Expander (convert SS To DS), JumpStart 2.7, Lock CPX, Memory, Powerdos, SilkMouse 3.0, Strip Formatter, Soft-Sci Screen Saver, ST-tools, System-e, Zest Le Menu. [Replaces #723d, #751d, #766.]

**#760: Utility No. 18** (1992) Add\_book 2.r, AW Humble Printer Setter, AW Selective Update Utility, Ideal List 3.105, Star 2000, Sub\_Cal. [Replaces #718d, #760d.]

**#719: Utility No. 17** (1992) 1st Spooler, Archive Shell 4.1, Binary Editor, Bootyme II, Bubble, Call Time 3, Change Size, Ctrl Caps, Diskus 2.1 demo, Dots Screen Saver, File Kill 1.2, Find All, Hd Info 1.7, James The Desktop Butler, JC Calendar 03, Look ST 1.6, Lzh201k, Multi Depacker 1.0, Poolfix 92, Protect 6, Request 1.09, Re\_Boot 2, TimeCard 1.01, Treeview. [Replaces #717d, #719d.]

**#706: Utility No. 16** (1992) 2 Columns 5a, Auto-Capture, Drive Boot Select 2, Hard Disk Boot Wait, Boot Sector Storage System 1.02, Drive B Installer, Custom Disk Formatter 1.1c, Datacom 3.2, Dc Reserve, Disk Cataloging System, Disk Save, Revenge Document Display, Drive Divertor, Edi\_Util, File Tool, Find 1.20, Fishes, Funky Screen Flipper, Type One Font Killer, Fuji Watch, Go-Accdesk Accessory Loader 2, K\_text 1.6.4 (file reader), Lock da, Marrow, Nbm 1.2 (benchmark), On Time 2.2, Pc-Trace, Ramtest, Sample Compressor 1.1, Sample Converter, Scan4pic, Startgem 1.4, Showmem 4, Starsaver 0.5, Whatis File Identifier 5.7, ST Worm, Write Boot 5.02. [Replaces #659d, #696d, #706d.]

**#651: Utility No. 15** (1992) Atari Hard Drive Utilities 5.0, Carthold, Cookiem, Db\_Eyes, DiskLock, Edda (text editor), Faze (screen saver), FujiDesk, Mega\_Check, MouseBoot 3, N\_desktop, Pathmap 1.0, Pinhead 2.1, Rapidfire, Stock Smart 2.1, Uncle Carl's Famous File Thrasher, Tlc Attributer 2, Tlc File Fixer, Tlc File Namer, Tlc Play, Tlc Resource 2.0, Tlc Show, Xboot demo. [Replaces #643d, #649d, #651d, #652d.]

**#642: Archiver Docs** (Supplement To #641.) Arc602d, Arc-shell, Article, Calc, Calend, Clocka, Dcformat, Dcopy36, Lh201hd, Lharc, Rambaby, Sbsnds, Spbf80, Vkill381, Sbother (acc, autosort, digedit, picsw7). [Updated With Latest Versions.]

**#641: Archiver DS** This disk is setup for owners of DS drives to bootup and be ready to uncompress files. It includes archiver programs, Superboot, a RAM disk, a virus killer program, a disk copy/format utility and some desk accessories. [Updated with latest versions.]

**#640: Archiver SS** This disk is setup for owners of SS disk drives to bootup and be ready to uncompress files. It includes archiver programs, a RAM disk, a virus killer program, and a few desk accessories. arcsh1 (arcshell.prg, arc.tpp, lharc.tpp, lzh2011.tpp), calend, clocka, rambaby, wkiller. [Updated with latest versions.]

**#639: Utility No. 14** (1991) Area Code Locator 3.0, Change Hz, Friesen Checkbook 2.2, Macmillan Checkbook 1.19, Cost of Living Adjuster, Edwin (text editor), First Base 1.8, Football Pool, infodisk (newsletter-on-a-disk), Low\_Rez, Mdisk 6.0, Payroll 3.0, Personal Finance Manager demo, Red Format 1.65, System Sentry, Uncle 3.7 demo, Units Conversion Program, Bells & Whistles Videotape data base 1.2. [Replaces #464, #638d, #639d.]

**#634: Utility No. 13** (1991) Accent, Argus (and Xargus), Beancalc, Bicalc 2, Bootplus, Boot Cpx, Calcpot, calc, Programmer's Calculator, Hard Disk Checker 8.1, DA Clock 1.7e, ColaCalc 1.0, cpxs (color, wcolors, sound, general, macel, Modem, Config, Printer), Cpx\_mdls (system, cookies, nviconf, fileinfo), Cut & Paste 1.5, DC Light Off, DC Mouse-ometer, DC Mmouser, DC Mouse Saver, DC No

Alert, DC Popbar, DC Run Rez, Disk Operational Speed tester 1.02, Double, Disk Statistics 1.1, Financial Calculator 2.5, Find duplicates, Find Mac 0.2, Formdoit 1.2d, File Selector, German cpx (format, calendar, ascii, nvdiconf, ms cache), Laser Cpx, Low Switch, Monitor Magic, Makecooky, Metric Clock, musical Disk Formatter, Mi59 Calculator, N\_format (ibm Pc Formatter), Menubar time 1.3, Procalc Scientific/Computer Math Calculator 1.0, Programmer's Calculator, RDY (STe reset-survivable ramdisk), Cpx Reversi, Speed Meter, Stint 3.1, St-Calc, SureCopy, TN Printing Calculator 1.2, Vanity Cpx, Xcontrol Accessory, Zoom Accessory. [Replaces #629d, #633d, #634d.]

**#595: Utility No. 12** (1991) Arc-lzh2, Arc to Lharc Switcher, AFX 1.2e, Autoarc, Extract', Jampack 4, Quester's lzh 2.01d, Lzh Shell, Multiarc 1.35, Pfxpak, Pfx 1.73, Squeeze IMG, Unlzh 1.72, xshell, Aoo 2.1, Zoo Shell 0.6. [Replaces #595 Plus Archive Programs Drawn From Various disks.]

**#589: Utility No. 11** (1991) Address, ClockSetter 1.3, Compare 1.0, Dblefeat, DC Salvage, DC Homey, Definitive File Selector, Director Printer, Diskfix 2, DC Disk Stat, Dmg Gif Converter, D\_Viewer, Elfboot 2, Fast Printer, File Sorter 1.3, Gallery, I\_Floyd (IMG file viewer), Litemail 2.02, Macimage, Mouse Tricks, No Verify, N\_CapsLock, Quotes 1.35, Dca/rft Ww Converter, Rtmove 2, Simm Fixer 2, Stree 1.04, Uncle 3.5, View. [Replaces #577d, #578d, #579d, #588, #599.]

**#567: Utility No. 10** (1991) 2-bit F-Keys 0.92, AB Format, Accessory 1.3, BootMaster, DC Boot It 1.0, DC Lefty 1.0, DC Topper, DC Mouse Wrapper 1.0, DC Right DC, Elvis Editor 1.3, Flrmt 3.5, Funk Alert!, Gnome Editor, Hotsaver 1.5, Img2icn, MassKill, MaxiFile 3 demo, Mcf Acc, mg Editor, Mk/rm Directories, Snapit, Stext 1.4f, Talker (text reading program), Tx2 Converter, UltraPacker 1.0, X\_Mon (screen driver for Moniterm), Zest demo. [Replaces #551, #555d, #564d, #565d, #567d.]

**#549: Utility No. 9** (1991) A1 Time, Backup ST, BigColor 1.05, Clock 5, FastCopy iii, Hyper Format 2.6, Idle 2.2, Little Green Selector 1.88, Library Master, Atari Mouse Accelerator 3.3, Menu Plus, Mini Tx2 file viewer 1.42, Mouse Doubler, Ocularx, Printer Setup Utility (panasonic kx-p1091i), Penultimate Printer Setter Upper, Quick St 2.2 demo, Sandp 2.1, Screen Dump 24-pin, ST Hard Drive Sentry 5.01, Spirit Editor 1.01, Printer Setup (starnb 24-10), Text View, Tx2\_View 1.35, Unerase, Volume. [Replaces #492, #506, #519, #531, #548d, #549d.]

**#490: Utility No. 8** (1990) Acypry (activate/deactivate auto programs), Address Label Printer 2.0, Canvas, Clock Sync 1.6, Convert 2 IMG 1.1, DC Show It, Desk Change, Envelope Acc, Fast File Compressor lzh, Flu 1.30, Flexi-fast, Gem Envelope, Hospital, Hotstat 1.1, HP Deskjet/Laserjet Screen Dump, HP Control 2, Infload, Jetlabel 1.1, Laserjet Label Printer, Laser brain Epson Emulator Fonts, List Files, Monste4 0.3 Monitor Emulator, Postal 2.0, HP Text File Printing, Pretty Print, Q\_text, Ramplus, Reorganize HD 2, Resistor, Shredder 1.1, Midi Strobe 1.3, ST\_Unzip, Typecad Font Editor demo, Tempel 1.9 (machine language debugger), Trim, Txt Dump, Uncle 1.5, Uncle Ram 1.0, Untar, Uux, Super Virus killer. [Replaces #435, #439, #443, #444, #451, #489, #490.]

**#434: Utility No. 7** (1990) All Slide 2.1, B-gif, Cheetah 2.0, Convert Pm, Degas Pic, Degas Elite Pixel Switcher, Diary Editor 1.7, Dictionary, DiskLabel 2, Forms 2, Ideal IMG Sizer,

Iffcnv, Invert, Iharc0.51, Laser Brain Epson Emulator for SIm804, Multiple IMG Setter 1.0, Paperless Accountant, Pi3 To Mac, Pm To Degas, Print IMG Star Nx, Rlsgd 0.9, Spx, Starstrk (screen saver), Switch 630, View Gif. [Replaces #412, #413, #414, #423, #425, #433, #434.]

**#406: Utility No. 6** (1990) Acc\_load, Address 2, Alarm Clock, Assassin, Bootup St0.9, Check 1a, Compact, Deskjet, Desk Pack Plus, Djet Boot, Dj\_degas, Eps Jet, Eternal RAM Disk, Fs Dj Driver, Hpdskjet, Index, Jetset, Kalklock, Laserjet, Mobzdial, Newword Acc, Print Degas, P\_or\_save, Camdisk 1, Screen Save, Spool, Startup, Stw\_hpdj, Testfont, Atari Tips, Ti59 Calculator, time/date, Trashcan, Tiny Tool Sector Editor. [Replaces #222d, #405d, #406.]

**#404: Utility No. 5** (1989) Address Database, Cachennn, DC Clock 3.3, DC Extract, Deskey 1.0, Dirsleft, Disk Verify, Disk Chart, Desk Manager 2.7, Ffind 1.2, Gem Label 3, Gem Redirect, Head Start 1.1, Hotwire demo, Make Fast, Megablit (paint program), Megawatt Accessory, Midi Max demo, Multidesk demo, Mystic Formatter 1.0, Neodesk 2 demo, Neoicons, Pack2prg, Pubpaint, Quick Find 1.5, Quick Format, Quick Index 1.5, Quick Inf 1.3, Quick label 1, Quick Menu 2.0a, Quick ST 1.45, Quick View 1.4, Quick Print 1.0, Shipacc, Speed Reader, Stuffer 0.9, TOS 1.4 Fix. [Replaces #374, #375, #376, #377, #379, #385, #403, #404.]

**#352: Utility No. 4** (1989) Abz Shell, Accessory 1.0, Address Book, Art Gallery, Bus Label, Compact Disk data base, Click Disk Labeler, Label Maker 4, DC Formatter Acc, DC Stuffer, DegaSnap, Diskette Management Utility, Memory Disassembler, Label Maker, Deluxe Slideshow 2.0, Floppy Disk Indexer, Gdos Boot 1.2, Gdos Manual, Gem Label 2.0, Gif Viewer, Gplus demo, HandyWipe, IMG Show, Image Editor Accessory, Intram Ramdisk, Label Maker 2.0, label Making Program, Label Max 1.0, Lightmail, Manual Maker 2.25, Mb Label Maker, MetaView, Mouse Editor, Screen Save, Speak Tex, St Banner, Volume. [Replaces #281, #294, #323, #324, #340, #343, #344, #352.]

**#254: Utility No. 3** (1988) AIM To Degas, ARC Accessory, Bootup 2.05, Convert Degas/Neo To Gif, Copy\_Format, css Format, Degas to Colr, Degas to Neo, Degas Display, Degas Save, Disk Free, Disk Mech, Disk Modify, Dscan100, Epson Font Editor, Format Acc 1.1, Foldrxxx, Degas Fonts to Gdos, Fast Disk Formatter, FS Hard Disk Optimizer, File Selector 6.0, Hackn100, HyperCopy, ICD Utility, Iff to Spectrum, Koala to Degas, Ledbetter Utilities, Menu Disk Library Prg, Neo/Degas Snap, Neo to Degas, Peniciln, Pm to Degas, PS to PM, Ram Baby, Seek Rate, Show Gif, Snap Shot, Spc to Spu, Spc to Degas, Spc to Gif, ST Maintenance, Tiny Stuff2, V152 Graphics Editor, Xutility Formatter. [Replaces #165, #166, #185, #206, #221, #234, #242, #253, #254.]

**#155: Utility No. 2** (1987) 1\_filepr Acc, Access Terminal Prg, Address Book, Arxx, Ash C Shell, Asl, Autodisk, Browse, Bucket, Buffers, Case, Coldboot, DegasPicker, Free Ram, Gem Font Editor, Gem Extended Format, Gulam, Harddisk Auto Boot, Hd Scan, Killer, Label Print, Less (text editor), Loader Acc, Modula-2 Printer, Make, Makerrsh, Mase, Multiple File Printer, Most, Mouse Editor, Print, Print 960, Quick Disk Labels, Ram Buffer Acc, Read Only Control Panel, Simple Disk Caching, Screen Dump, Set Init, Spell, Start 1.1, Start Gem, Thin, Uedit, Uuencode, Uudecode, Verify, Vix Text Editor. [Replaces #121, #131, #132, #144, #145, #155.]

**#107: Utility No. 1** (1987) 410k Formatter, 8-bit Emulators (Apple/Atari), Address Book, Analyzer, Backup, Banner, Blast, Bulk Disk Eraser, Chop, Clipboard Manager, Contents, Directory Listing prg, Disk Directory Printer, Degas Fonts, Degas Printer Drivers, Density, Deskacc cli, Directory Search, Disassemble Programs, Disk Icons, Encrypt, EZ Squeeze, Fastram, Fast Ram Disk, Fedfont Editor, Fileprint, Function Key Label, Folder 2 Disk, Format, Format 2, Formutil, Helper2, Initdisk, Intersect Ramdisk, Label Printer, Li Directory Lister, Library, Loadram, Mac To Atari, Make 1 MB, Make 512 ST, Micro Marquee, Mike5 Ram Disk, Monitor ST, Amiga Music Studio to St, P Command, Pedit, Picdex, Pr off, Ram\_disk, Sbackup, Show1040, Show520, Spool 33k Title Page Printer, Ultimate Ramdisk copy, Vcr Log, Yard Ramdisk. [Replaces #25, #63, #72, #73, #81, #94, #95, #102, #107.]

## TELECOMMUNICATIONS PROGRAMS

**#829: Telecom No. 8** (1993) Genie: Air Warrior, V2.0e, Aladdin V1.6x, Aladdin Manual, Genie's Assistant 1.0, Aladdin's Magic Browser 1.1, Aladdin Script Manual and Tutorial, Aladdin Viewer 2.0. CompuServe: Quick-CIS 1.71, Edhak demo. [Replaces #553d, #569, #689d, #747d.]

**#798: Telecom No. 7** (1993) BBS Games: Assassin 1.51, Joute, Thieves' Guild and Thieves' Guild Emulator. [Replaces #716d, #797d, #798d.]

**#772: Telecom No. 6** (1993) ST-Keep BBS 4.99 And Triplink! FED BBS. [Replaces #712d, #715d, #772d.]

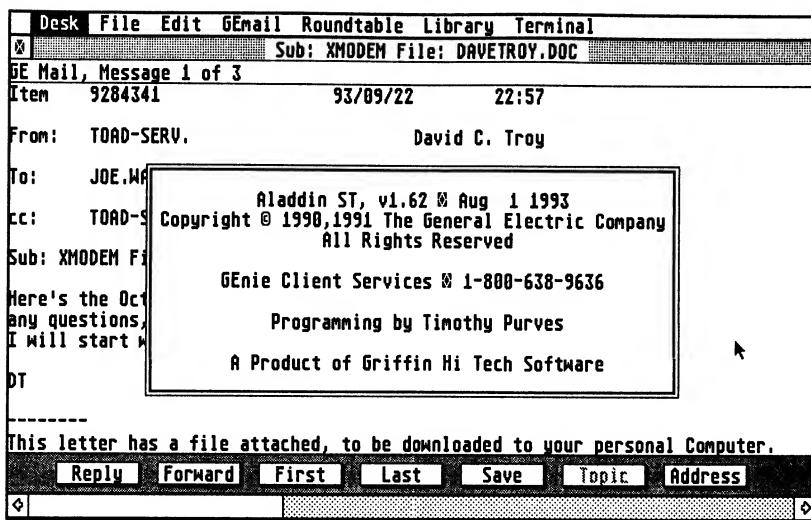
**#771: Telecom No. 5** (1993) Terminal Programs: Connect, V2.10i, Uniterm V20.c, Internet Information. [Replaces #674d, #771d.]

**#743: Telecom No. 4** (1992) Terminal Programs: Ansi Term 1.5, Freeze Dried Software Terminal 2.04, Rufus 1.10, VanTerm 4.0, Plus Galactic Empire 2.41 (BBS space game) And Ghost Writer (da to upload messages). [Replaces #626d, #735d, #743.]

**#714: Telecom No. 3** (1992) CowsI 8.7 (online text adventure game), Instant Graphics! 2.16 (online graphics interpreter), igs Professional 1.6 (graphics editor), Ms2ig (play Midi songs over modem), slideshow Construction Kit 1.1, Transcendence BBS 2.05 demo. [Replaces #473d, #713d, #714d.]

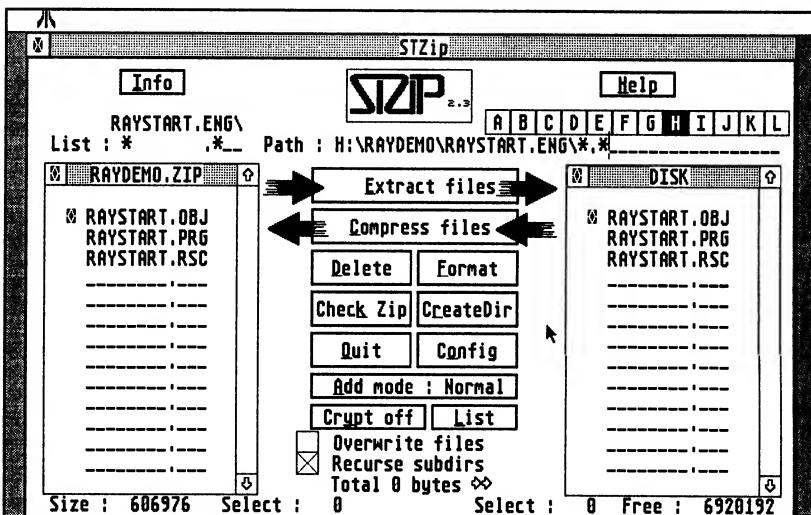
**#636: Telecom No. 2** (1991) Bulletin Board Systems: BBS Express demo, Nite Lite BBS, Omni BBS 1.01, Starnet BBS 1.24, Vulcan Embassy BBS 1.0, Plus Iron Coffins 2.0 (BBS war game). [Replaces #325, #510d, #584, #636d.]

**#597: Telecom No. 1** (1991) Terminal Programs: Dualterm Elite 1.04, G.I.M.E. Terminal



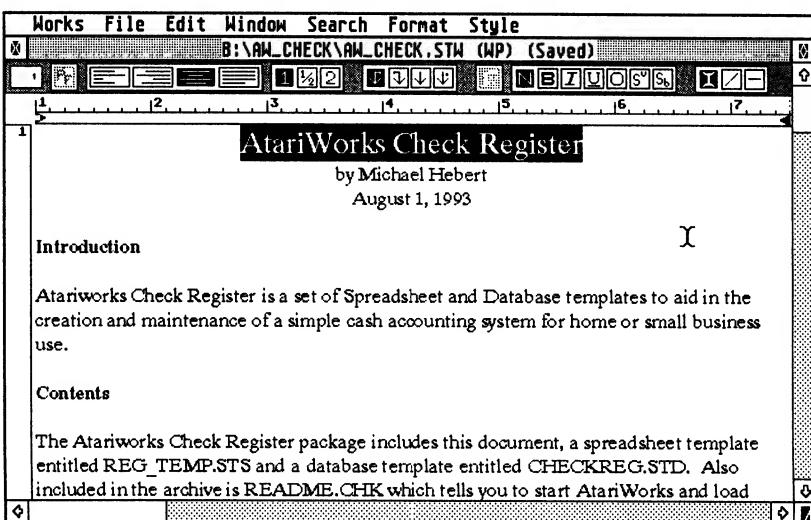
### Aladdin ST - #829

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### ST Zip 2.3 - #834

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### AtariWorks Check Register - #835

One of many, many AtariWorks utilities on this disk.

demo, Hagterm Elite 3.3, Gem-Kermit, Mini BBS, MiniTerm, Moterm Elite 1.41, ST Term. [Replaces #300, #347, #449, #474, #597d.]

## SEPTEMBER 1993

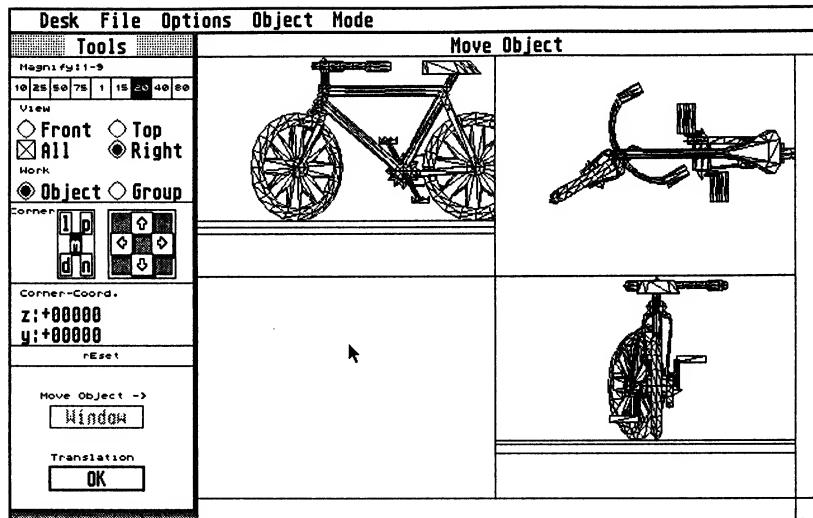
**#830: Game Demo (C).** BUTTONZ AWARI. New strategy game based on 3000 year old Africal classic.

**#831: Games (C).** KABOOM! (an old 8-bit favorite); FROGGER! (Features colorful graphics and smooth game play); BUGS (Another millipede game); YAHTZEE (Play Yahtzee with up to 10 players); NUMBERS10 (Learn My Numbers, an educational game for children. STE/TT or Falcon); DROPIX (Hot block game, demo).

**#832: Games.** ANGBAND is based on Moria. This game is a role playing game that enables you to assume the role of a character and attempt to master the dungeon.

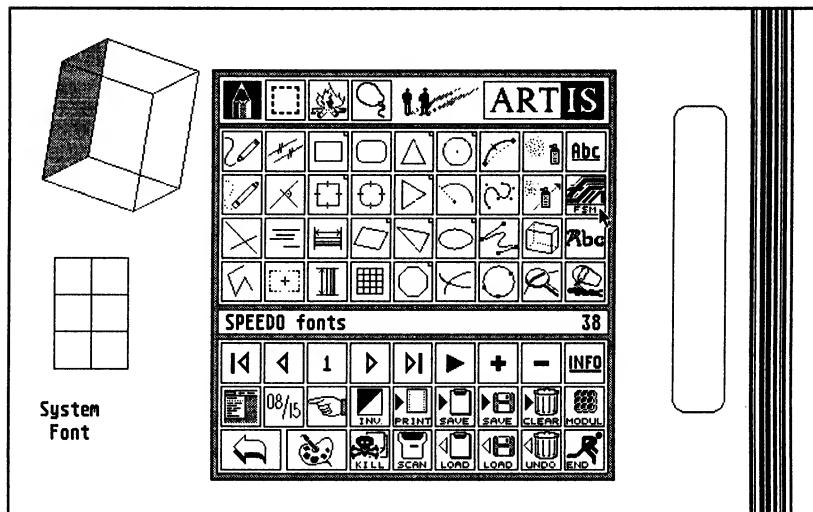
**#833: Games (C).** PYSCHO PIG II (platform game written in STOS, usual STOS warnings apply. Tested on TOS 1.02. Shareware); UTOPOS (Space War variant, split-screen with neat weapons).

**#834: Utility No. 25:** XCONTROL (V1.31 with new CPX modules updated to use the new 3D object types available with the Falcon030 and MultiTOS); TSHCPX\_E (gives you a recoverable trash can); CPXBASIC (Complete BASIC language in a CPX); GBENCH31 (GEM Bench V3.1 Benchmarking program); WINNI (GEM's window limit of 8 is removed.); LHA210 (V2.10 of LHA, the full-function archiver/unarchiver for .LZH archives); STZIP23 (STZip V2.3, July 22 '93. The best archive program for the Atari).



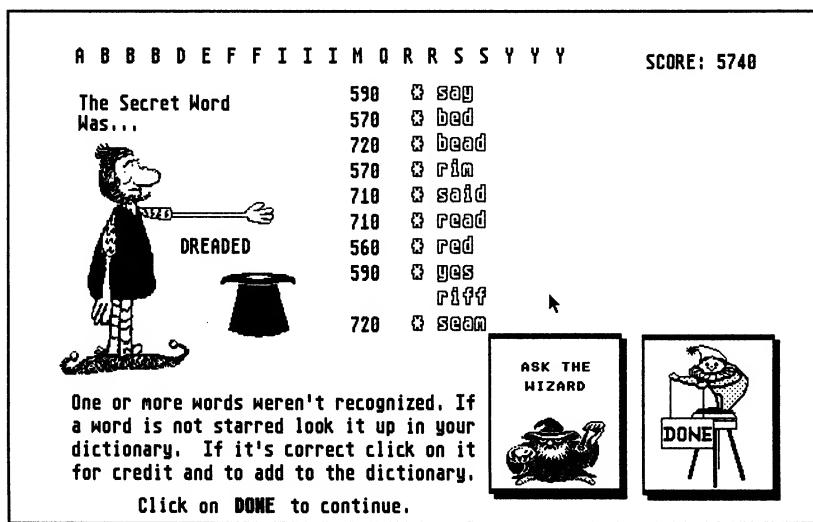
## Raystart Demo – #836

Raytracing – convert your IMG pictures to vector graphics.



## Prism Paint II Demo – #837

Not only versatile paint tools, but animation, as well.



## Magic Speller – #839

Disk also includes Glossary of Atar Computer terms and EdHak 3 Demo.

platform (ST/TT/Falcon) and on every VDI compatible GFX card. Save function and .PNT file import function disabled in this demo.

**#837: Prism Paint II Demo.** Demo of Prism Paint II (Artis Animator).

**#838: Magic Spell.** MAGSPELL (spelling fun for all ages); ED3DEM (demo of EdHak 3.0); GLOSSARY (large, complete, Atari / computer glossary with/reader).

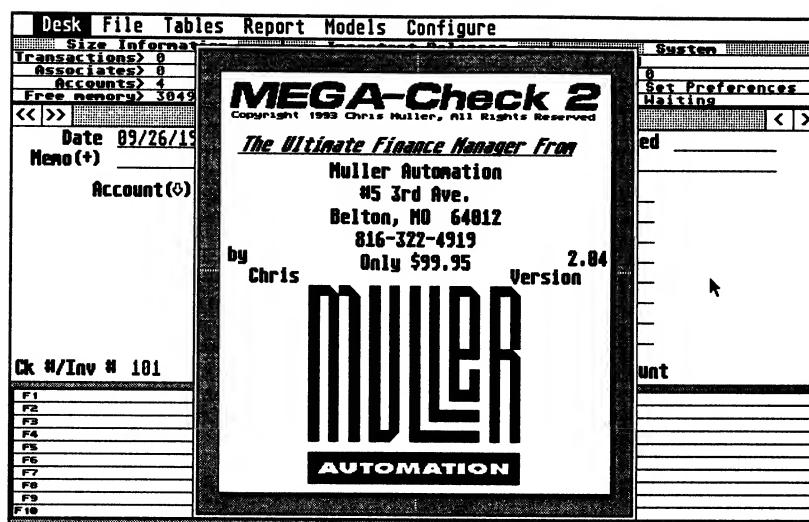
**#839: Mega-Check.** MC204 (Mega-Check V2.04, finance manager; Req 1+MB); EZDESKDM (demo of EZDesk for desktop background pictures); GROCRY31 (Grocery Lister program); MSPYDEM3 (MIDI Spy demo).

**#840: Before Dawn.** BMP2 (Background Music Player); BOOT\_SND (Boot Sound Player); DAWN\_E (Before Dawn screen saver accessory); DCLOCK1 (clock accessory w/ large display); LITTLNET (LittleNet is a Desk acc that networks two Ataris through MIDI cables).

**#841: Editors/Viewers.** EDITH (shareware text editor); EVERST (feature-packed ascii text editor); M\_VIEW10 (Mountain View, a general purpose text viewer can replace the desktop show/print/cancel feature); TCLI (shareware command-line interpreter for ST and TT, one of the most ambitious of the compact CLIs currently available; a must have for power users.)

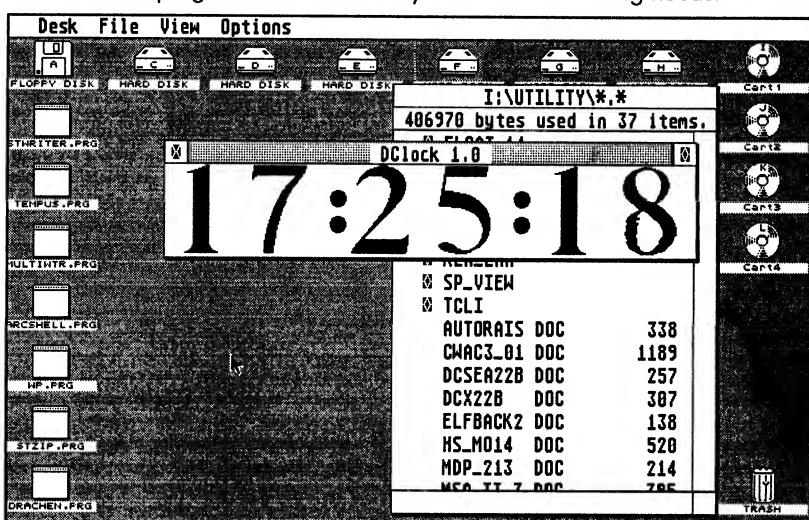
**#842: Utility No. 26.** AUSPCK15 (GEM-based archive utility shell); AUTORAIS (da automatically tops window under mouse); BJ\_ENVLP (envelope printing for BJ owners); DCSEA22B (DC SEA creates self-extracting files from ARC, LZH, ZIP and ZOO files); DCX22B (DC Xtract Plus extracts ARC, LZH, ZIP, ZOO from within one program); ELFBACK2 (HD backup/restore for TT); FLCAT\_14 (FileCat V1.4 tracks changes in disk or hd files over time and does incremental backups); GBNCH325 (GBNCH325 (GEMBench V3.25, benchmarking utility; this version fixes bugs and has more accurate tests); HS\_MO14 (fixes serial-port speed limitations on modem port 1); REN\_LHA (rename LHArchives according to file compression type automatically); STOSFX21 (fix STOS run-only programs to work with newer TOSes); TOSX\_2 (TOS Exit causes TOS/TTP programs to wait for a keypress before returning to desktop).

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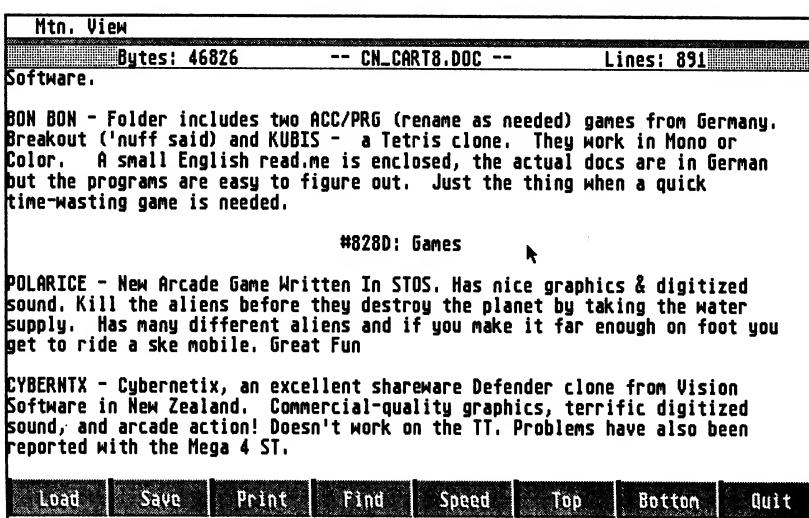
### MEGA-Check 2 - #839

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**Rick Reaser** (8-Bit Editor)

**Dave Troy** (Myths & Mysteries)

Other CN Columnists:

**David Barkin** (Running Out of RAM) 39 East 7th Street, New York City, NY 10003

**Michaell Mortilla** (Staying in Touch) PO Box 1266, Santa Barbara, CA 93102-1266. CIS: 72401,1765.

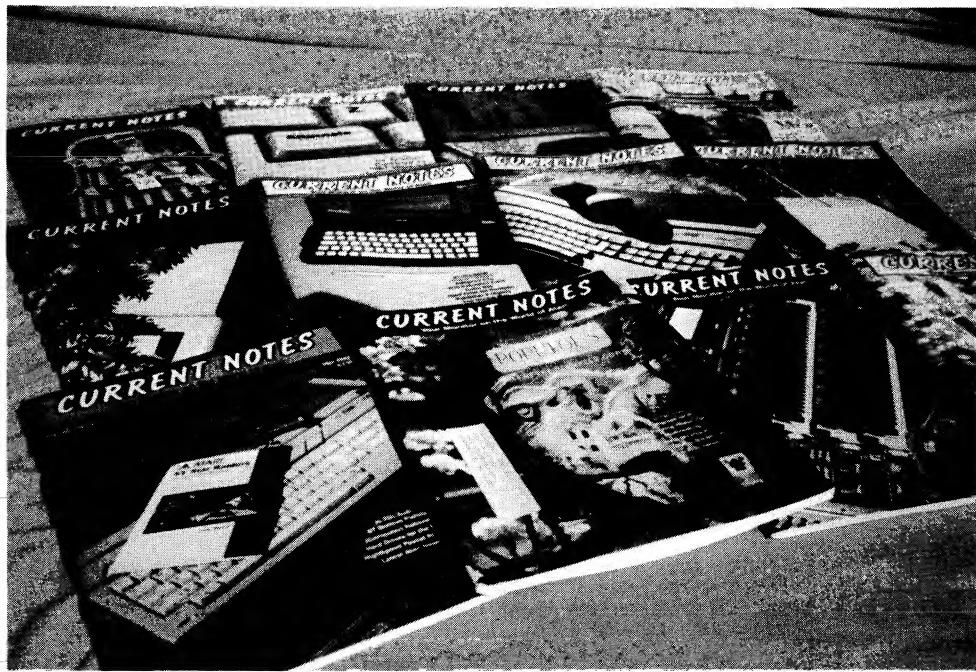
**Lou Rocha** (GENie Notes) 4 Rustywood Dr, Don Mills, Ontario Canada M3A 1R7; GENie: STLOU

**Dave Small** (Small World) 40 W. Littleton Blvd. #210-211, Littleton, CO 80120. (303) 791-6098; fax: (303) 791-0253; CIS: 76606,666; GENie: DAVESMALL.

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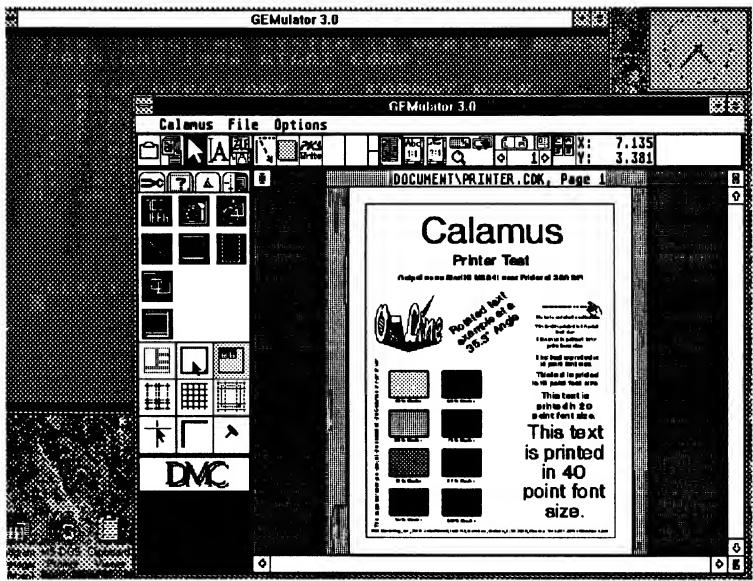


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- modem, printer, and sound support,
- emulates up to 8 meg of RAM,
- Atari 130XE emulation included,

are all standard features of Gemulator. No need to buy a Falcon or spend \$\$\$ upgrading your ST!

## **Gemulator 3.0 will be on sale at the Glendale show, Sept. 18-19, 1993.**

**Highly  
Compatible  
Emulation**

**Inexpensive  
To Install**

**Reviewed**

**Fast And  
Powerful**

**All TOSes**

**Graphics**

**Sound**

**Hard Disk**

**Laptop ready**

Gemulator is fully compatible with: Pagestream, Calamus / Calamus SL, MultiTOS, Geneva, Silhouette, LDW Power, Word Up, ST Writer, GFA Basic, Neodesk, Prism Paint, Flash, Tempus, Degas, Word Writer, First Word, Hotwire, Multidesk, Maxifile, GDOS/G+PLUS, Quick ST / Warp 9, Word Flair, EZ Calc, Sudden View, Laser C, ST Xformer, Magic Sac, Avante Vector, Thunder, UIS III, and hundreds of other Atari ST programs.

Gemulator requires only a basic 386 or 486SX PC. A new 486SX system including VGA monitor and hard disk now costs under \$1200. So for about \$1400 you have both a 486 and an Atari ST clone that has double the memory limit, double the screen resolution, and double the disk storage of a real ST! Just price for yourself what it would cost to either upgrade your existing ST to TOS 2.06, VGA graphics, 1.44 meg floppy, and 8 meg of RAM, or what it would cost to buy the Falcon (if you can find one) and you'll see that Gemulator is a very sensible alternative to buying an ST. Product reviews in Current Notes (April 1993) and ST Informer (July 1993) agree.

On fast 486 machines, Gemulator runs 2 to 3 times faster than the ST. That's as fast as the Falcon, and because Gemulator emulates the 68000 chip, not the Falcon's 68030 chip, Gemulator runs software that won't run on the TT or Falcon. For compatibility with ST software that does not run on TOS 2.06, the Gemulator card allows you to plug in any earlier version of TOS. How easily can your ST switch between TOS 1.0, TOS 1.4, and TOS 2.06?

Gemulator eliminates the need for having two monitors, since your PC's monitor can display all ST screen modes. The screen dump above shows Gemulator using a 640x480 graphics mode, running Calamus SL under Windows. Gemulator now supports sound by using your PC's Sound Blaster, Sound Blaster Pro, or AdLib sound cards.

Gemulator gives your ST software access to the PC's hard disk. Use Atari's HDX utilities to autoboot from the hard disk. Create up to 4 32-megabyte ST partitions, or share files with PC programs on existing DOS partitions.

Gemulator runs on laptop PCs, even color laptops, allowing you to use your favorite Atari ST software almost anywhere, on smaller and lighter machines than the Atari STacy. All you need is a laptop with an 8-bit card slot.

**The complete Gemulator 3.0 package containing the emulator with U.S. TOS 2.06 ROMs costs only \$229 U.S. Current Gemulator 2.1 users can upgrade for only \$30 before September 3. For a flyer with ordering information and a more detailed description of Gemulator 3.0, write or send email to:**

**Branch Always Software, 14150 N.E. 20th Street, Suite 302, Bellevue, WA 98007**

Phone (before 2pm Eastern time) or FAX: 206-885-5893 CompuServe: 73657,2714 GEnie: BRASOFT Delphi: DAREKM